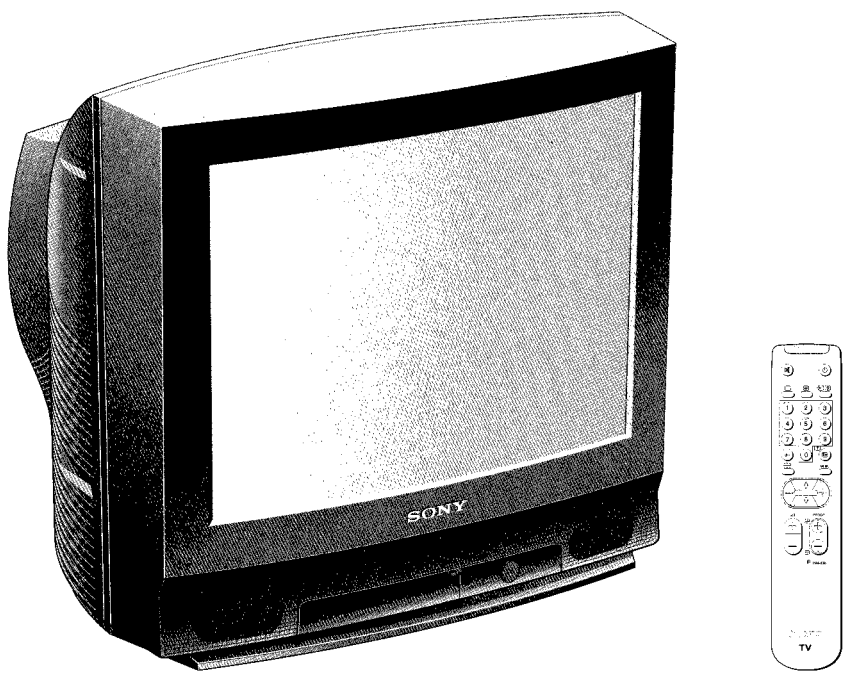
SERVICE MANUAL

BE-4A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-21M3A	RM-836	Italian	SCC-J05FA
KV-21T3A	RM-836	Italian	SCC-J05GA
KV-21M3B	RM-836	French	SCC-J06HA
KV-21T3B	RM-836	French	SCC-J06JA
KV-21M3D	RM-836	AEP	SCC-J08GA
KV-21T3D	RM-836	AEP	SCC-J08HA
KV-21M3E	RM-836	Spanish	SCC-J04GA
KV-21T3E	RM-836	Spanish	SCC-J04HA

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-21M3K	RM-836	OIRT	SCC-J03KA
KV-21T3K	RM-836	OIRT	SCC-J03LA
KV-21M3L	RM-836	Irish	SCC-J02EA
KV-21T3L	RM-836	Irish	SCC-J02FA
KV-21T3R	RM-836	OIRT	SCC-J03MA
KV-21M3U	RM-836	UK	SCC-J01FA
KV-21T3U	RM-836	UK	SCC-J01GA



MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20 UHF: E21-E69, S21-S41 HYPER: S1-S41	PAL
French	B/G/H, L	VHF: E2-E12, F2-F10, B-Q UHF: E21-E69, F21-F69 HYPER: S1-S41	PAL, SECAM
AEP	B/G/H	VHF: E2-E12 UHF: E21-E69 HYPER: S1-S41	PAL, SECAM
Spanish	B/G/H	VHF: E2-E12 UHF: E21-E69 HYPER: S1-S41	PAL
OIRT	B/G, D/K	B/G VHF: E2-E12 UHF: E21-E69 D/K VHF: R01-R12 UHF: R21-R69 Hyper : S1-S41	PAL, SECAM
Irish UK	I	UHF: U21-U69 VHF: A-J (Irish) UHF: U21-U69 (UK)	PAL

MODEL	21M3A 21T3A	21M3B 21T3B	21M3D 21T3D	21M3E 21T3E	21M3K 21T3K 21T3R	21M3L 21T3L	21M3U 21T3U
Power Consumption	58W	58Wh	58W	58W	58W	58W	75W

SPECIFICATIONS

Picture Tube: Super Trinitron
Approx. 54.5 cm (21 inches)
(Approx. 51 cm picture measured diagonally)

Rear/Front Terminals

[REAR]

- 1 21-pin Euro connector (CENELEC standard)
- Inputs for audio / video signals
- Inputs for RGB

[FRONT]

- Video (phono jack)
- Audio (phono jacks)
- Headphone jack - minijack

Sound output: 4W (RMS)
5W (music power)
Dimensions: 518x474x488 mm approx.
Weight: Approx. 20 kg
Supplied accessories: RM-836 Remote Commander (1)
IEC designated batteries (2)
Other features: TELETEXT (for KV-21T3 models)

[RM-836]

Remote control system: Infrared control
Power requirements: 3V dc (2 batteries) R6 (size AA)
Dimensions: Approx. 210x45x24 mm (w/h/d)
Weight: Approx. 90g
(Not including battery)

Design and specifications are subject to change without notice.

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

SAFETY-RELATED COMPONENT WARNING!!

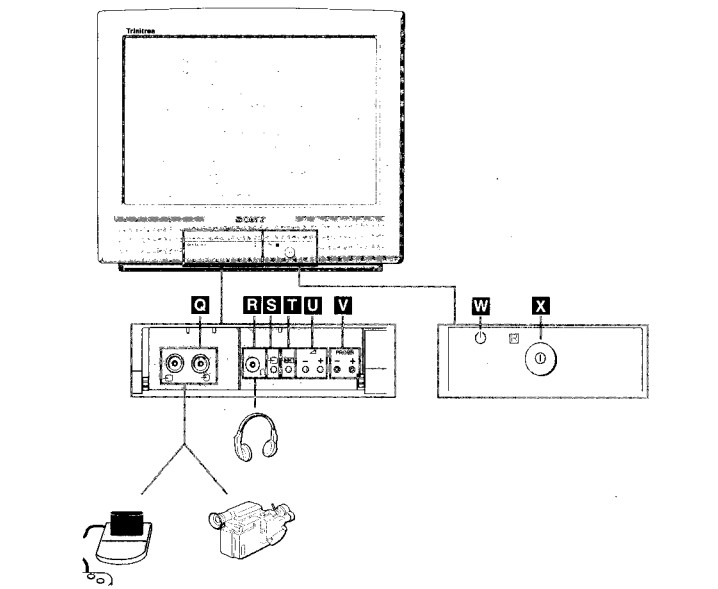
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

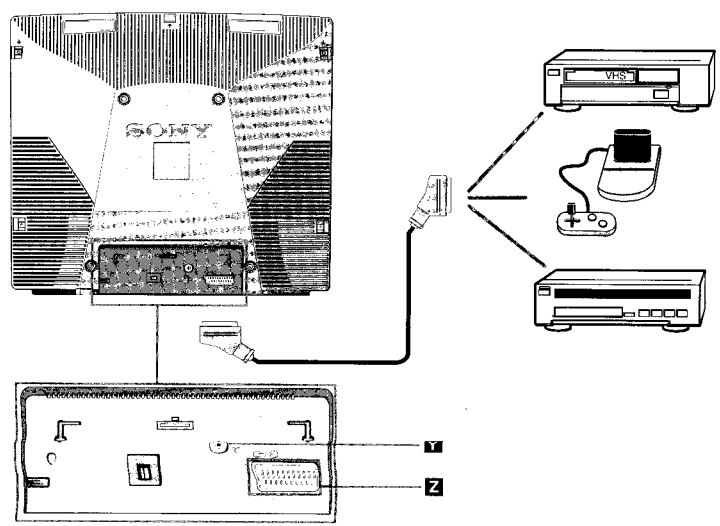
ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

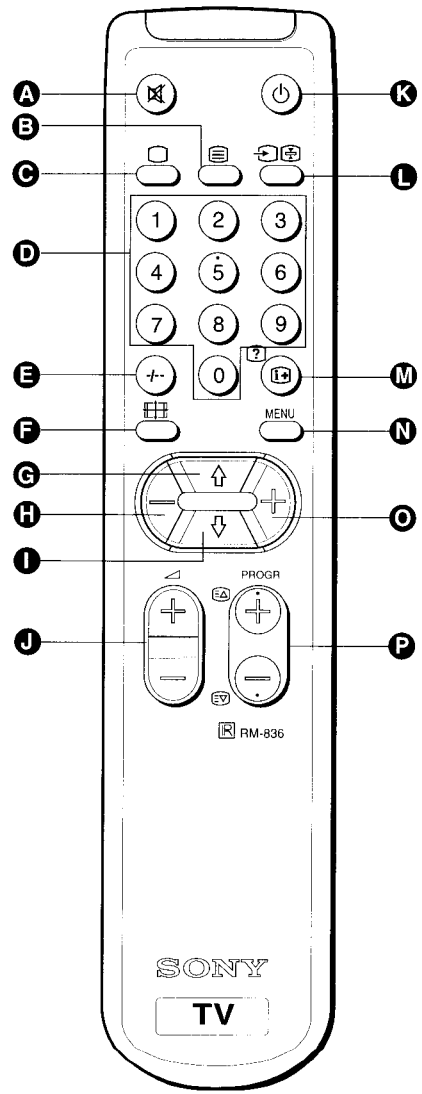
LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

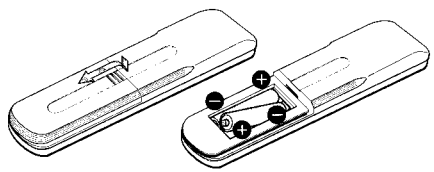






Step 1

Inserting the Batteries into the Remote Commander



Step 2

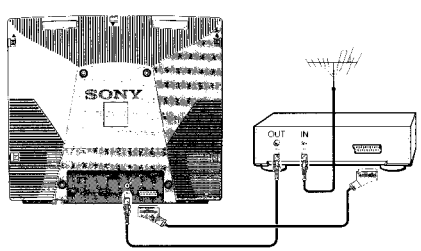
Connecting the Aerial

If you are connecting a VCR, skip to step 3.

Connect an external aerial to the socket ⅂ Y.

Step 3

Connecting a VCR



• It is recommended to tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 12.

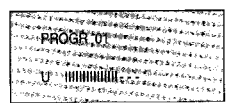
Step 4

Presetting Channels Automatically

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually.

1 Plug into mains.
Press power switch ⏻ on TV set.

2 Press and hold ⏭ T on TV set for about 2 seconds.
Auto tuning starts and the following screen shows.



Notes • When Auto tuning stops the programme on position 1 is seen.

• **Non Teletext models (KV-21M3U/21M3L only)**

– channels are stored in no particular order.

• **Teletext models (KV-21T3U/21T3L only)**

– channels are automatically stored as follows:

	KV-21T3U	KV-21T3L
Programme 1	BBC1	RTE1
Programme 2	BBC2	RTE2
Programme 3	ITV	BBC1
Programme 4	CH4 or S4C	BBC2
Programme 5	CH5 (if available in your area)	ITV
Programme 6	-	CH4 or S4C
Programme 7	-	CH5 (if available in your area)

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander.

To	Press
Switch on	⏻ X on TV
Switch off temporarily	⏻ K TV is now in standby mode, ⏻ indicator W on TV lights.
Switch on again	▢ C, PROGR +/- P V or any number button D
Switch off completely	⏻ X on TV To save energy we recommend switching off completely when TV is not in use.
Select programmes	PROGR +/- P V or number buttons D For double digit numbers press -/-- E then the number e.g. For 23, press -/-- E then 2 and 3.
Display the programme number	i+ M Press again to make programme number disappear.
Adjust the volume	◿+/- J U
Mute the sound	🔇 A Press again to restore sound.
View video input	⇥ L S Press ▢ C to return to TV programme.
View RGB input (eg to connect playstation)	⇥ L S twice. RGB ⇥ will appear on screen Press ▢ C to return to TV programme.
View programmes in 16:9 mode	▭ F Press again to return to 4:3 mode. **Note** • ▭ F is to be used to optimise the viewing of 16:9 signals, which will be available in the future.

Viewing Teletext

Teletext is an information service broadcast by TV stations.

1 Select the channel which carries the teletext service you wish to receive.

2 Press ☰ B to switch on teletext.

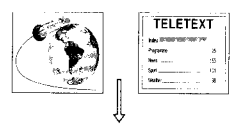
3 Input three digits for the page number using the programme number buttons D or PROGR +/- P V.

4 Press ▢ C to switch off teletext.

Note • Teletext errors may occur if the broadcasting signals are weak.

Using Other Teletext Functions

Superimposing teletext on the TV



Press ☰ B once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.
Press ☰ B again to cancel superimposing.

Freezing a teletext subpage

Press ⊟ L (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated.
Press ⊟ L to cancel HOLD and allow update to continue.

Revealing concealed information (eg: answers to a quiz)

Press ? M to reveal information.
Press again to conceal the information.

Using colour buttons to access pages

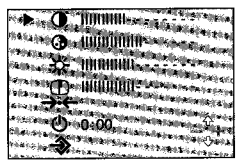
When the colour coded menu appears at the bottom of a page, press the colour button (red, green, blue or yellow) H G I O to access the corresponding page.

Note • A programme status message in a blue box may appear when you change programmes (depends on broadcasters).

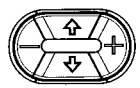
Use buttons on Remote Commander to control Menu screen.

MENU ⓝ
Menu Screen
on/off

Green ⓖ
scroll up



Red ⓗ
decrease



Yellow ⓞ
increase/confirm(OK)

Blue ⓘ
scroll down

Adjusting the Picture

1 Press MENU ⓝ.

2 Press green ⓖ or blue ⓘ button to select the item you wish to change.

Symbol	Item	-	Effect	+
◑	Picture	Less		More
◕	Colour	Less		More
☼	Brightness	Darker		Brighter
◧	Sharpness	Softer		Sharper

3 Press red ⓗ or yellow ⓞ button to change levels.

4 Press MENU ⓝ to return to normal TV screen.

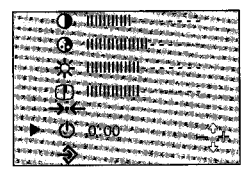
Note • To reset to factory preset picture levels, press green ⓖ or blue ⓘ button to select ↔ and press yellow (OK) ⓞ button.

Using the Sleep Timer

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 30 minutes steps up to 4 hours.

1 Press MENU ⓝ.

2 Press green ⓖ or blue ⓘ button to select ⏻.



3 Press red ⓗ or yellow ⓞ button to set time delay.
0.00 (OFF) 0.30 1.00 1.30 .... 4.00

4 Press MENU ⓝ to return to normal TV screen.
When watching TV, press i+ ⓜ to display time remaining.

Auto Standby

(for TV mode only)

As a safety feature the Auto Standby function has been added to this model.
If no signal is received for a period of 30 minutes, the TV will automatically switch to standby mode.

To return to normal TV operation, press ▭ ⓒ, PROGR +/- ⓟ ⓥ or any other number button ⓓ.

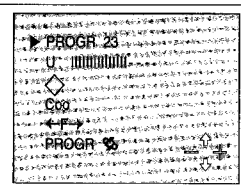
Presetting Channels Manually

Up to 100 programme positions are available for presetting channels.

1 Press MENU ⓝ.

2 Press green Ⓖ or blue Ⓘ button to select ◈ and press yellow (OK) Ⓞ button.

3 Select programme number using PROGR +/- ⓅⓋ or the number buttons Ⓓ.



4 Press green Ⓖ or blue Ⓘ button to select tuning bar (||||||····) and press red Ⓗ or yellow Ⓞ button to start channel search. When a channel is found the tuning bar stops moving and you see the picture.

5 If you want to store, press green Ⓖ or blue Ⓘ button to select ◇ and press yellow (OK) Ⓞ button. If you do not want to store, press red Ⓗ or yellow Ⓞ button to continue search.

6 Repeat steps 3 to 5 for all other channels.

7 Press MENU ⓝ to return to normal TV screen.

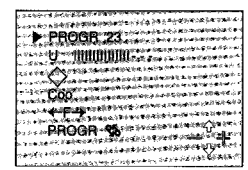
Skipping Programme Positions

You can skip unused programme positions when selecting channels with the PROGR +/- ⓅⓋ buttons. You can still select them, however, using the number buttons Ⓓ.

1 Press MENU ⓝ.

2 Press green Ⓖ or blue Ⓘ button to select ◈ and press yellow Ⓞ button.

3 Select programme number you want to skip using PROGR +/- ⓅⓋ button or number buttons Ⓓ.



4 Press green Ⓖ or blue Ⓘ button to select Coo and press yellow (OK) Ⓞ button.

5 Press green Ⓖ or blue Ⓘ button to select ◇ and press yellow (OK) Ⓞ button to store.

6 Repeat steps 3 to 5 for other unused programme positions.

7 Press MENU ⓝ to return to normal TV screen.

Note • To restore a skipped programme number, refer to "Presetting Channels Manually".

Fine-Tuning Channels

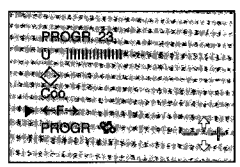
You can fine tune a stored channel if necessary.

1 Select the channel you wish to fine tune.

2 Press MENU ⓝ.

3 Press green ⓖ or blue ⓘ button to select ◇ and press yellow (OK) ⓞ button.

4 Press green ⓖ or blue ⓘ button to select ←F→ and use red ⓗ or yellow ⓞ button to adjust tuning.



5 Press green ⓖ or blue ⓘ button to select ◇ and press yellow (OK) ⓞ button to store.

6 Press MENU ⓝ to return to normal TV screen.

Exchanging Programme Positions

After tuning you may wish to change the order of the channels on your TV.

1 Press MENU ⓝ.

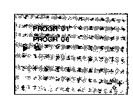
2 Press green ⓖ or blue ⓘ button to select ◇ and press yellow (OK) ⓞ button.

3 Press green ⓖ or blue ⓘ button to select PROGR ⇅ and press yellow (OK) ⓞ button.

4 Press red ⓗ or yellow ⓞ button until the channel you wish to rearrange appears on screen, then press the blue button once.

5 Press red ⓗ or yellow ⓞ button to select the new programme number (eg PROGR 01) for your selected channel.

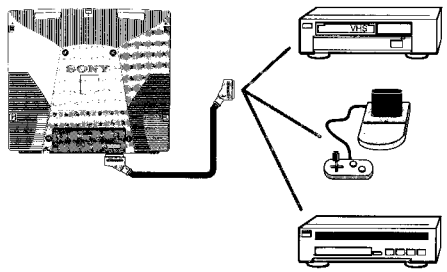
6 Press blue ⓘ button to select ⇅ and press yellow (OK) ⓞ button to exchange the channels.



7 Repeat steps 4 to 7 if you wish to change the order of the other channels on your TV.

8 Press MENU ⓝ to return to normal TV screen.

Using the Connectors



Your TV has one 21-pin connector Z on the rear of the set and two connectors (phono jacks: video, audio) Q on the front of the set. You can connect optional audio or video equipment to these connectors, such as a VCR, video games or a video disc player.

1 Press L S to view the video input signal.

2 Press L S again to view RGB/playstation signal.
RGB will appear on screen.

3 Press L S or C to return to the normal TV screen.

Note • To avoid picture distortion, do not connect equipment to the 21-pin connector and the front connectors at the same time.

Connecting Headphones

Plug in the headphones to the R socket on the front of the TV set to mute the sound from the speaker.

Troubleshooting

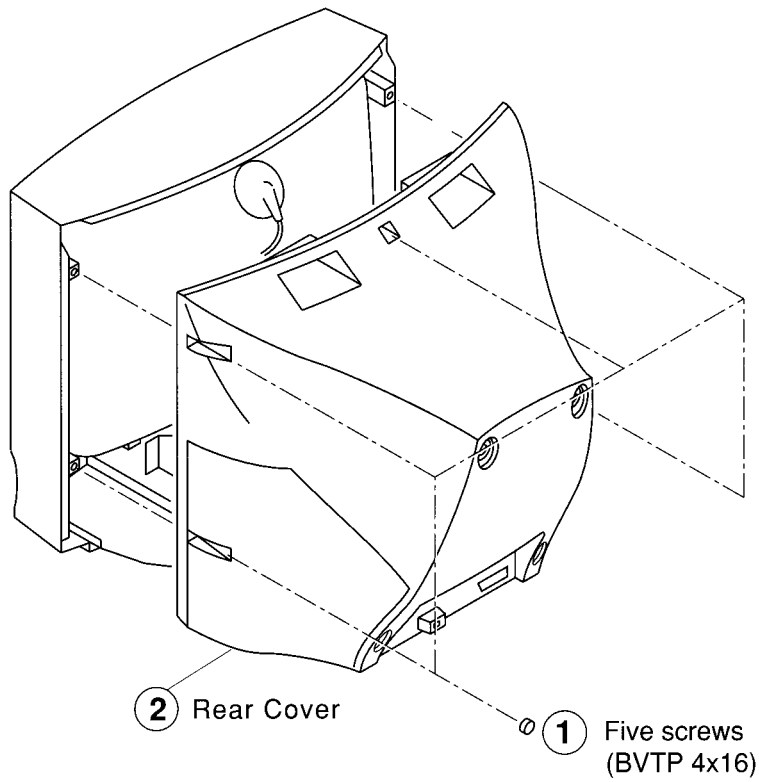
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture, screen is dark, no sound	• Plug the TV in. • Press I X on the TV. • Press C or the programme number D on the remote commander if indicator W is on. • Check the aerial connection. • Check that the video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using I X.
Poor or no picture (screen is dark, sound is good)	• Press MENU N and adjust brightness picture and colour levels.
Good picture, no sound	• Adjust the volume +/– J U. • Disconnect any headphones. • Press A if is displayed on the screen.
No colour on colour programmes	• Press MENU N and adjust colour balance. • Press MENU N and reset to factory settings.
Distorted picture when you change programmes or select teletext	• Turn off the equipment connected to the 21-pin connector Z when this equipment is not in use.
Remote commander does not function	• Replace the batteries.

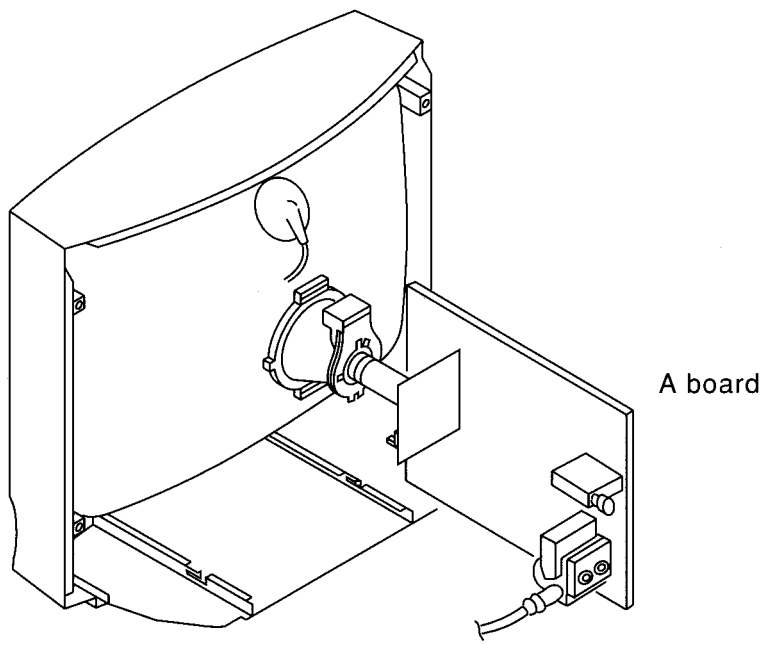
• If you continue to have these problems, have your TV serviced by qualified personnel.
• NEVER open the casing yourself.

SECTION 2
DISASSEMBLY

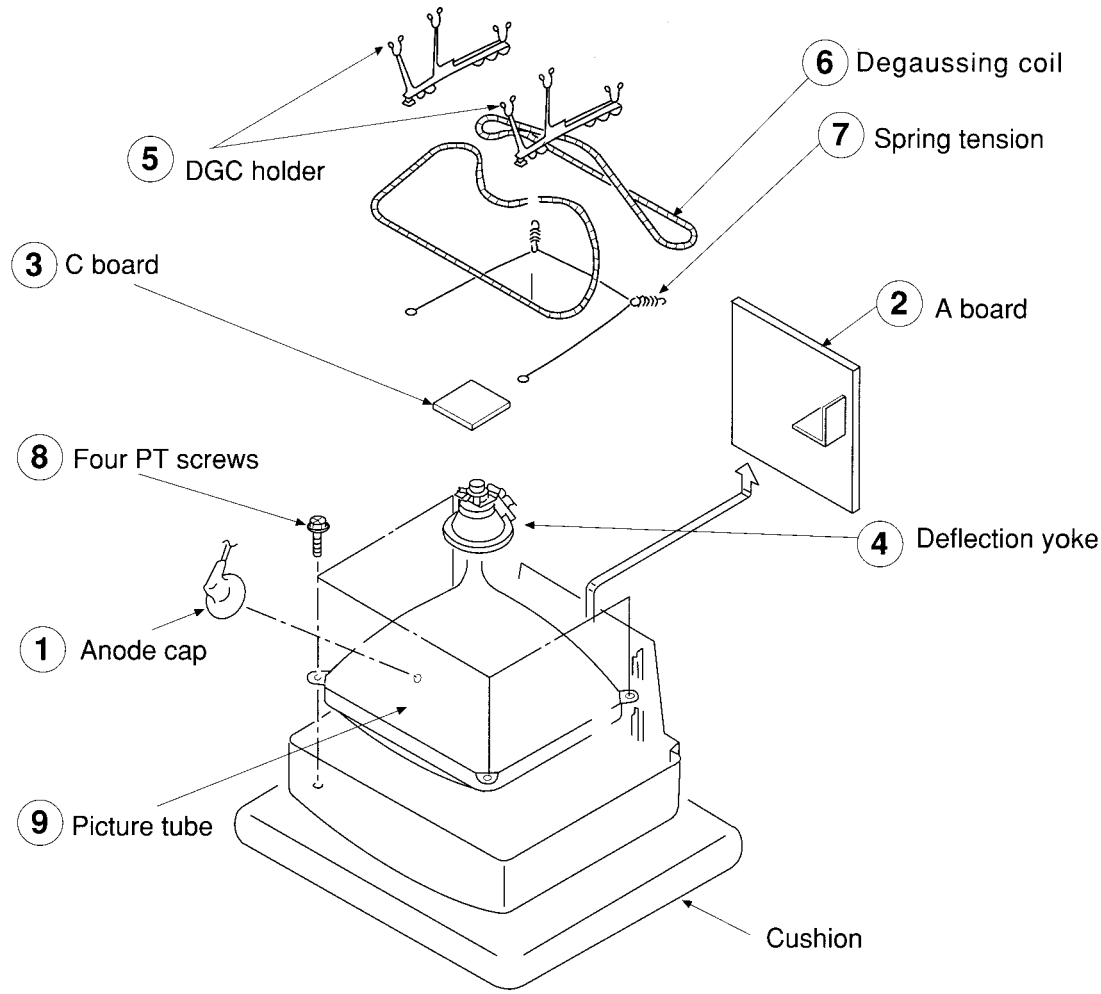
2-1. REAR COVER REMOVAL



2-2. SERVICE POSITION



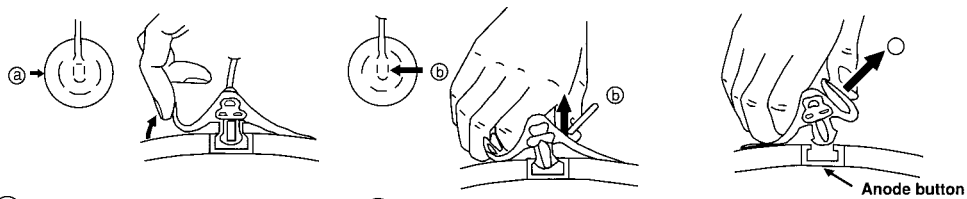
2-3. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* **REMOVING PROCEDURES.**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

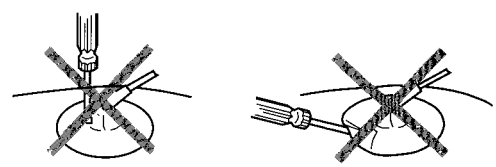
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

• HOW TO HANDLE AN ANODE-CAP

① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with the rated power supply voltage, unless otherwise noted.

The Contrast and Brightness controls should be set as follows unless otherwise noted:

◑ CONTRAST control 80%
(or Normal by commander)
☼ BRIGHTNESS control 50%

Perform the adjustments in the following order:
1. Beam Landing
2. Convergence
3. Screen (G2), Drive, White Balance, Sub Colour and Sub Brightness.
4. Focus

Note: Test Equipment Required.
1. Colour bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:
- In order to reduce the influence of external magnetic forces on the picture tube, face the TV set in an easterly or westerly direction.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

Demagnetize with a degausser.
1. Input an all white raster signal from the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Switch the raster signal of the pattern generator to Red.
3. Move the deflection yoke backward, and adjust with the purity control so that Red is at the centre and the Blue and Green are evenly spaced at the sides. see (Fig. 3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes Red. (Fig. 3-1)
5. Switch the raster signal to Blue and then Green to confirm the condition.
6. When the position of the deflection yoke has been determined, tighten it with the deflection yoke mounting screw.
7. When the landing at the corners is not correct, adjust by using disk magnets. (Fig. 3-4)

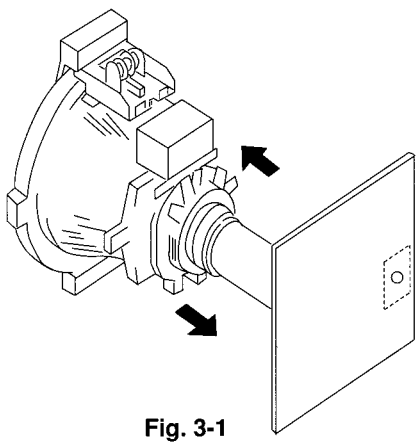


Fig. 3-1

Fig. 3-2

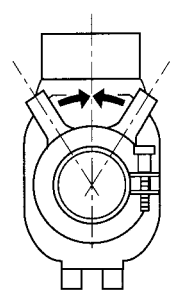


Fig. 3-3

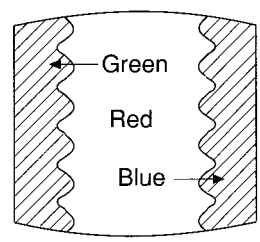
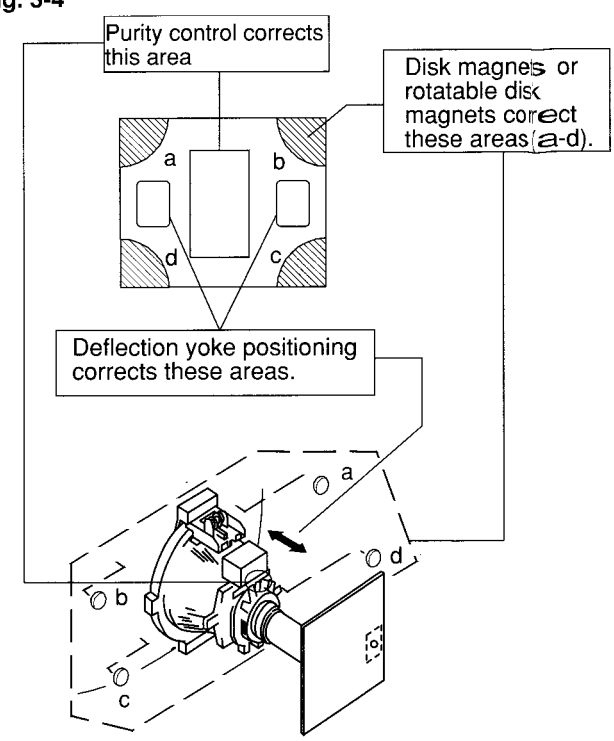


Fig. 3-4

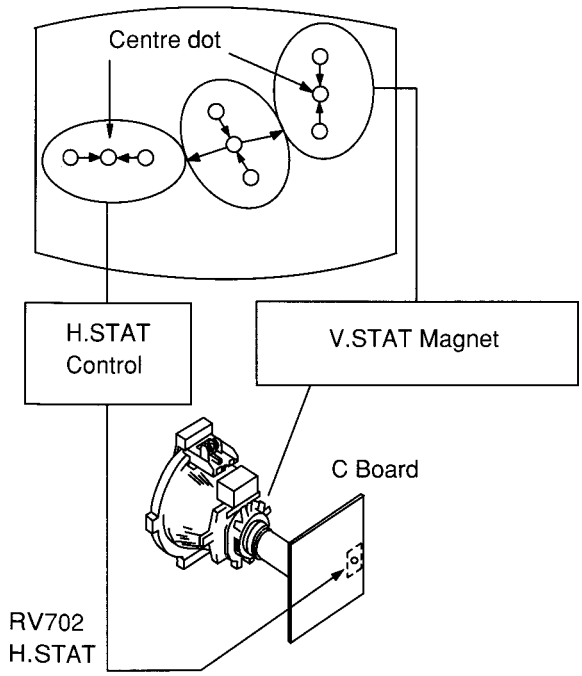


3-2. CONVERGENCE

Preparation:

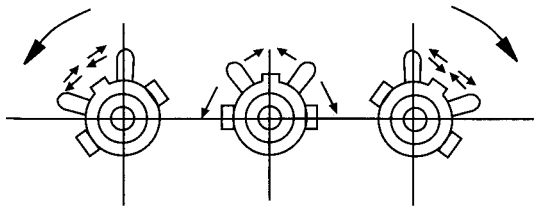
- Before starting, perform FOCUS, H.SIZE, and V.SIZE adjustments.
- Set the BRIGHTNESS control to minimum.
- Input a dot pattern from the pattern generator.

(1) Horizontal and Vertical Static Convergence

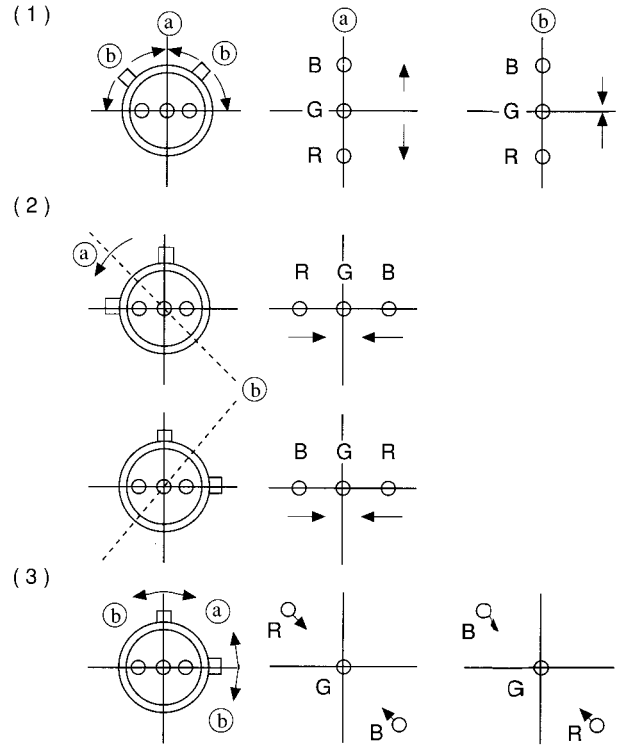


1. Adjust the H.STAT control to converge the Red, Green and Blue dots at the centre of the screen. (Horizontal movement)
2. Adjust the V.STAT magnet to converge the Red, Green and Blue dots at the centre of the screen. (Vertical movement)

- If the horizontal dots cannot coincide with variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.
  (Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



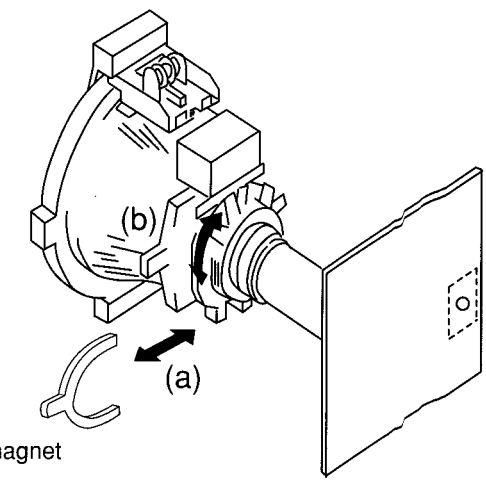
3. When the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue dots move as shown below.



If the Red and Blue dots do not converge with the Green dots, perform the following steps.

1. Move the BMC magnet (a) to correct for insufficient H.static convergence.
2. Rotate the BMC magnet (b) to correct for insufficient V.static convergence.

In either case, repeat the Beam Landing Adjustment.



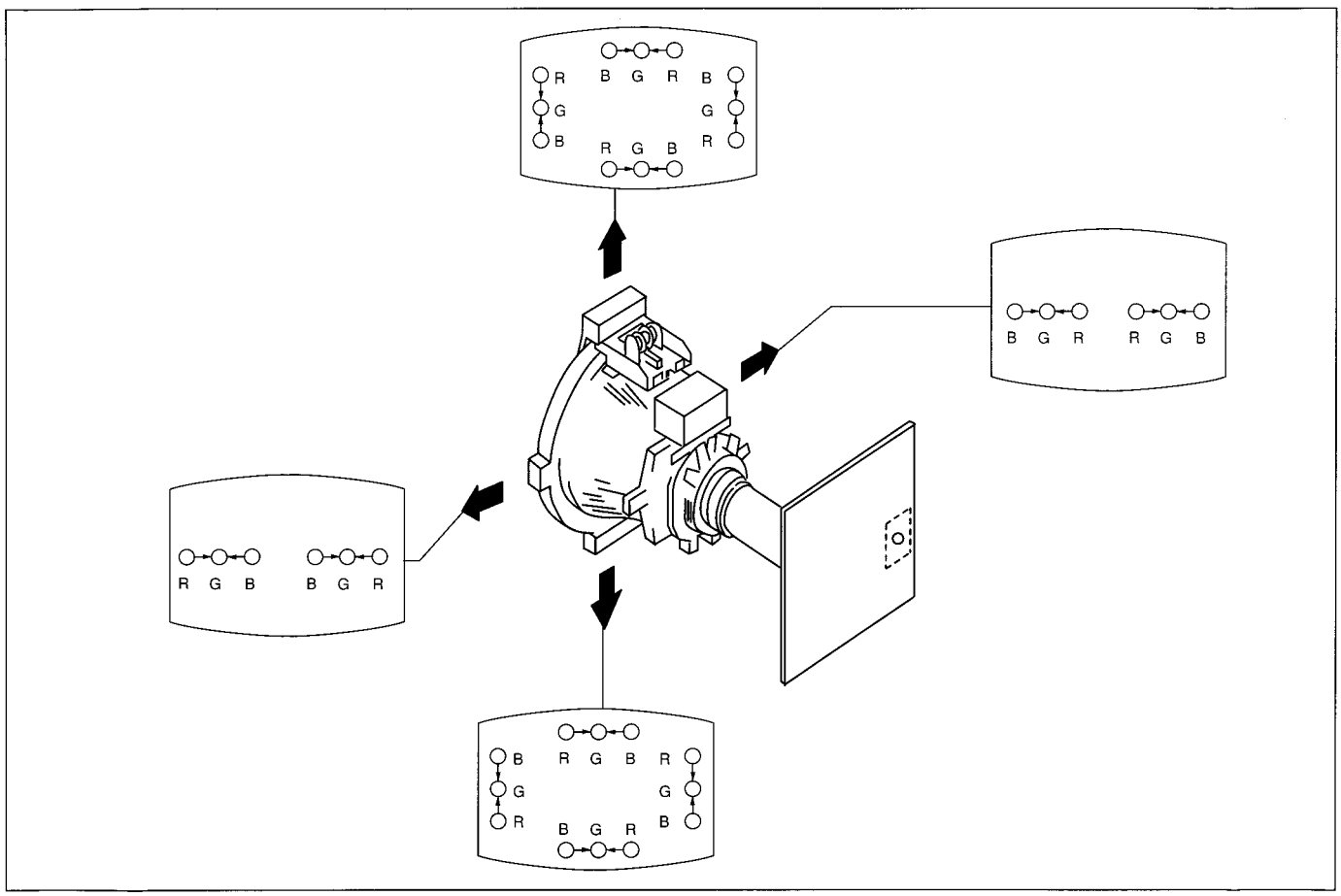
BMC magnet

(2) Dynamic Convergence Adjustment

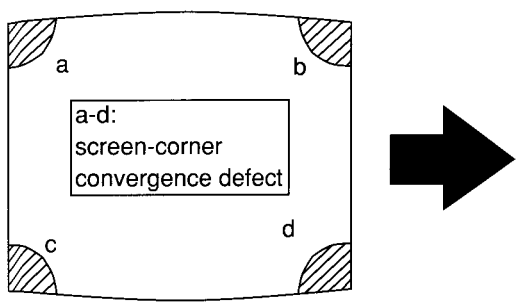
Preparation:

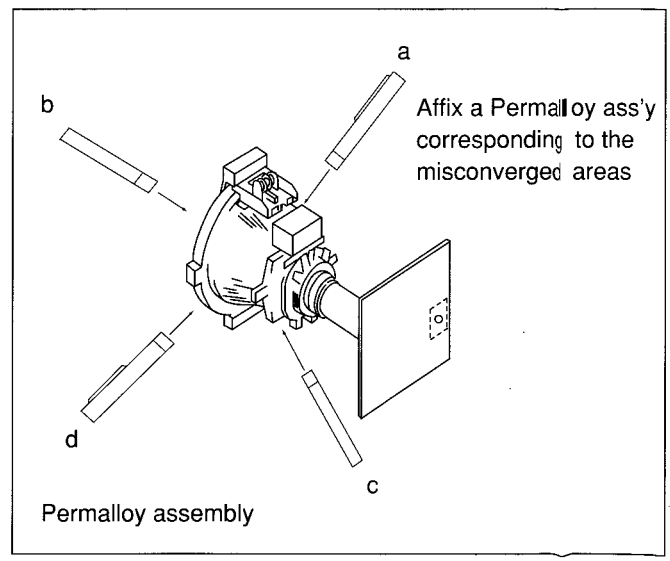
- Before starting to perform the Horizontal and Vertical static convergence adjustment.

1. Slightly loosen the deflection yoke screw.
2. Remove the deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

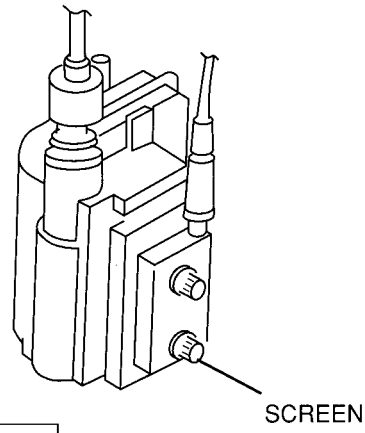


(3) Screen-corner Convergence.





3-3. SCREEN (G2), DRIVE, WHITE BALANCE, SUB COLOUR and SUB BRIGHTNESS.

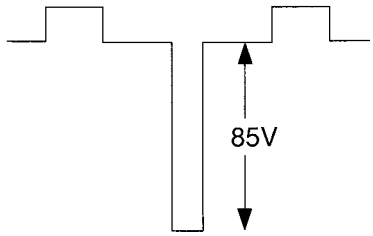


Screen (G2) setting

1. Input a 0 IRE (Black Level) signal from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 38.
3. Adjust SCREEN VR until the Down arrow is displayed.
4. Adjust SCREEN VR until the Down arrow just disappears.
5. Press the TV Button on the Remote Commander to store the data.

Drive Level

1. Input a Video signal containing a small area of 100% white on a black background.
2. Connect an oscilloscope to Pin 10 of J701 (R OUT) on the C Board.
3. Set the Picture to maximum using "Test""Test" and 01.
4. Enter into the Service mode (Adjust Menu).
5. Using the Blue and Green buttons select "RED HWB".
6. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform has an amplitude of 85V.

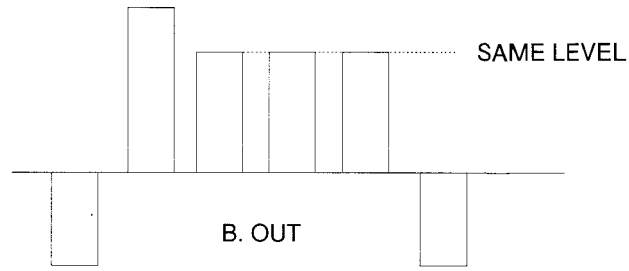


White Balance Adjustment

1. Input an all white pattern from the pattern generator.
2. Adjust the Colour and Brightness controls to the standard level.
3. Enter into the Service Mode.
4. Adjust the Green HWB and Blue HWB so that the White Balance becomes optimum.

Sub Colour Adjustment

1. Input a PAL colour bar pattern from the pattern generator.
2. Connect an oscilloscope to Pin 8 of J701 (B OUT) on the C Board.
3. Enter into the Service Mode "Test""Test" and 22.
4. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform becomes as follows :



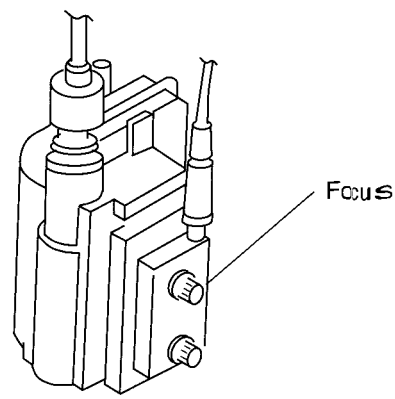
Note : If the TV is able to receive PAL and SECAM transmissions, repeat the above procedure using a Secam colour bar signal.

Sub Brightness Adjustment

1. Input a Philips pattern from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 23.
3. Using the Red and Yellow buttons on the Remote Commander adjust until the 0 IRE of the grey scale and the cut off are only slightly visible on the screen.

3-4. FOCUS

1. Receive a television broadcasting.
2. Normalize the picture setting.
3. Adjust the focus control on the flyback transformer to become the focus in the centre area properly.
   Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



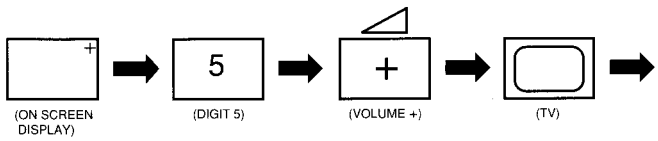
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied Remote Control Commander RM-836.

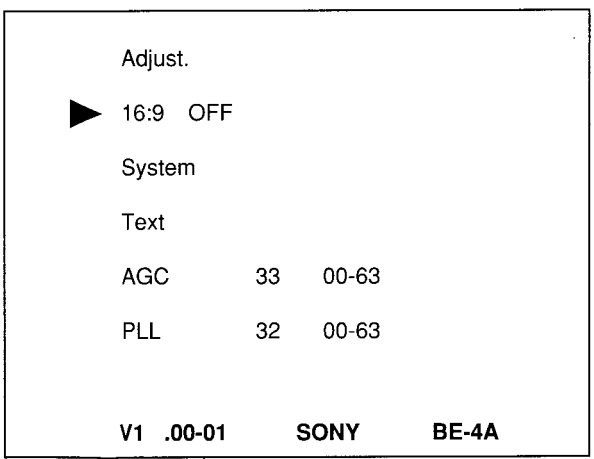
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power of the set and enter into stand-by mode.
2. Press the following sequence of buttons on the Remote Control Commander.



"TT-- " will appear in the top right corner of the screen Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



4. Press the Blue (Next) or Green (previous) buttons to select the adjustment item from the table.
5. Press the Yellow (+) or Red (-) buttons to change the data as required.
6. Turn off the power to quit the service mode when adjustments are completed.

Range of adjustments available from the on screen menu system.

Adjustment	Set	Range
16:9 OFF	Select	ON/OFF
System	Select	BG-L, BG-DK UK, Eire, BG
Text	Select	EAST/WEST
AGC	Adj	00 - 63
PLL	Adj	00 - 63
B&W Delay	Adj	00 - 63
Ver Size	Adj	00 - 63
Ver, Breath	00	00 - 63
Par, Ampl	00	00 - 63
Par, Tilt	32	00 - 63
V, Linear	Adj	00 - 63
Corn, corr	00	00 - 63
V, Cen or EW	Adj	00 - 63
V, Position	42	00 - 63
H, Centre	Adj	00 - 63
Blue HWB	Adj	00 - 63
Green HWB	Adj	00 - 63
Red HWB	Adj	00 - 63

4-2. TEST MODE 2:

TT -- Mode is available by pressing the Test button twice, O.S.D 'TT --' appears. The functions described below are availabl
by pressing two digits. To release the 'TT --' mode, press 0 twice, press 'TEST' , press 'TV' or switch the TV into Stand-by m

00	Cancel test mode, return to normal viewing mode.
01	Set picture level maximum
02	Set picture level minimum
03	Set volume to 35% of maximum
04	Set volume to 50% of maximum
05	Set volume to 65% of maximum
06	Set volume to 80% of maximum
07	Enable Ageing condition
08	Set TV shipping conditions
09	No function
10	No function
11	Enable of disable the RGB input feature
12	Enable or disable the Text Contrast level offset
13	Select odd or even field for non-interlaced teletext
14	Select interlaced or non-interlaced teletext display
15	Copy the software deafult setting to the last power memory
16	No function
17	Enable or Disable the sharpness adjust feature
18	Enable or disable the teletext operation (SSA5291 only)
19	Enable or Disable the NTSC reception facility
20	No function
21	Sub Picture Adjustment
22	Sub Colour Adjustment (different stored locations for PAL & SECAM)
23	Sub Brightness Adjustment
24	Enable tuning for systems B/G/L
25	Enable tuning for systems B/G/D/K
26	Enable tuning for system I (UHF only)
27	Enable tuning for system I (VHF-L, VHF-H & UHF)
28	Enable tuning for system B/G
29	Sub brightness adjustment with picture at absolute zero
30	No function
31	Adjust the teletext & OSD Horizontal position (SSA5296 & SSA5498 only)
32	No function
33	Perform auto AGC adjustment
34	Perform auto PLL adjustment
35	Enable or Disable the auto standby feature
36	No function
37	Set Vertical size minimum and go to ZOOM1 mode
38	Enter G2 factory adjustment mode
39	Restore Vertical size and go to ZOOM3 mode
40	No function
41*	Write all default data to the NVM
42*	No function
43*	Write default geometry data to the NVM
44*	No function
45*	No function
46*	No function
47*	No function
48*	Write the NVM test byte as 44(hex)
49*	Write the NVM test byte as FF(hex)

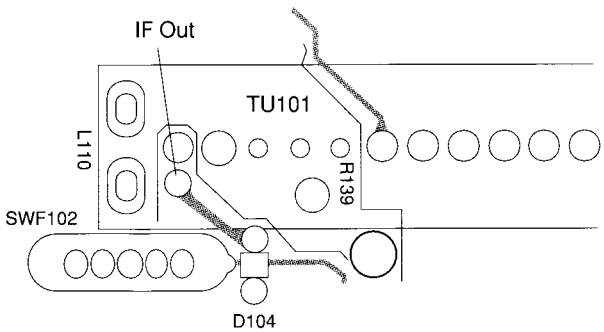
Note : *= Programme number must be set to 59 in order to apply these functions

IF ADJUSTMENT (AUTOMATIC)

1. Input a 38.9 MHz 100dBμ CW signal at the IF Out injection point.
2. Enter into service mode and press 34.
3. Connect a digital voltmeter to IC101 pin (23).
4. Check AFT 2.5V ±0.3V dc.
5. Press '00' on the Remote Commander.

SYSTEM L ADJUSTMENT (French Models)

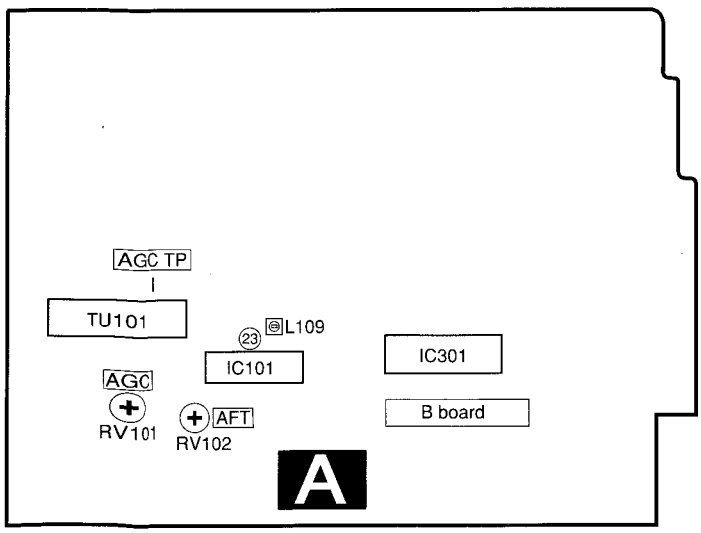
1. Input a 33.9MHz 100dBμ CW signal at the IF Out injection point.
2. From the On Screen Menu set System to L band 1.
3. Connect a digital voltmeter to IC101 pin (23).
4. Adjust RV102 AFT for 2.5V ±0.3V dc.



- A Board Print Side -

AGC ADJUSTMENT

1. Receive an off-air signal.
2. Enter into the Service adjust menu and select AGC.
3. Adjust the data using the Red and Yellow buttons on the Remote Commander so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



- A Board Component Side -

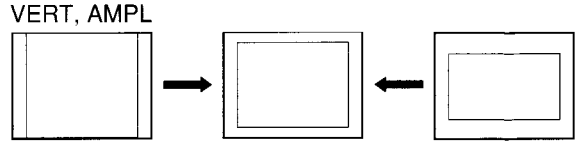
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the service mode.
2. Using the Blue or Green buttons select the Adjust item.
3. Press the Yellow button to enter the adjustment submenu.
4. Select and adjust each item in order to obtain the optimum image.

See Note on page 22

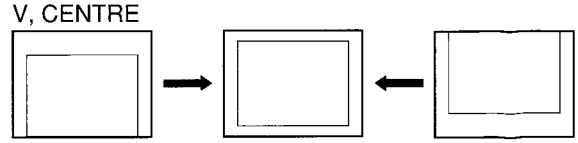
Adjustment	Set	Range
VERT, AMPL	Adj	00 - 63
VER, BREATH	00	00 - 63
PAR, AMPL	00	00 - 63
PAR, TILT	32	00 - 63
V, LINEAR	Adj	00 - 63
CORN, CORR	Adj	00 - 63
V, CENTRE	Adj	00 - 63
V, POSITION	42	00 - 63
H, CENTRE	Adj	00 - 63

VERT, AMPL

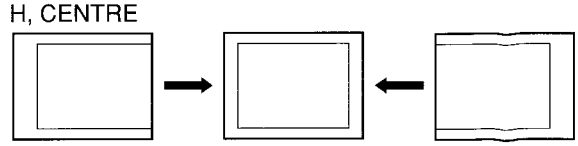


V, LINEAR

V, CENTRE



H, CENTRE



Fit the link as required to obtain the correct horizontal picture size.

4-3. BE-4A SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-4A chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to I^2C. In the event of one of these situations arising the software will first try to release the Bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each relevant device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED by a Series of flashes which must be counted (See Table 1)., on fatal errors are reported with this method.

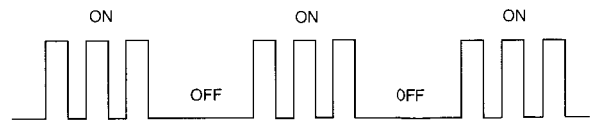
If a fatal error is found, the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue to operate.

Table 1

No. of Flashes	Meaning
2	IC301 not acknowledging I^2C transmission, NVM OK.
3	IC301 FAULT (Not OK) - flags
4	IC301 - No H Flyback
5	IC301 - Stack Overflow
6	Overvoltage / Overcurrent Protection (Pin 52) high.
7	IC002 not acknowledging I^2C transmission, IC301 OK.
8	IC002 and IC301 - No I^2C acknowledgement
9	General I^2C Error (SDA or SCL being held low) (IC301, IC001, IC002, CN001)

Flash Timing Example : e.g. error number 3

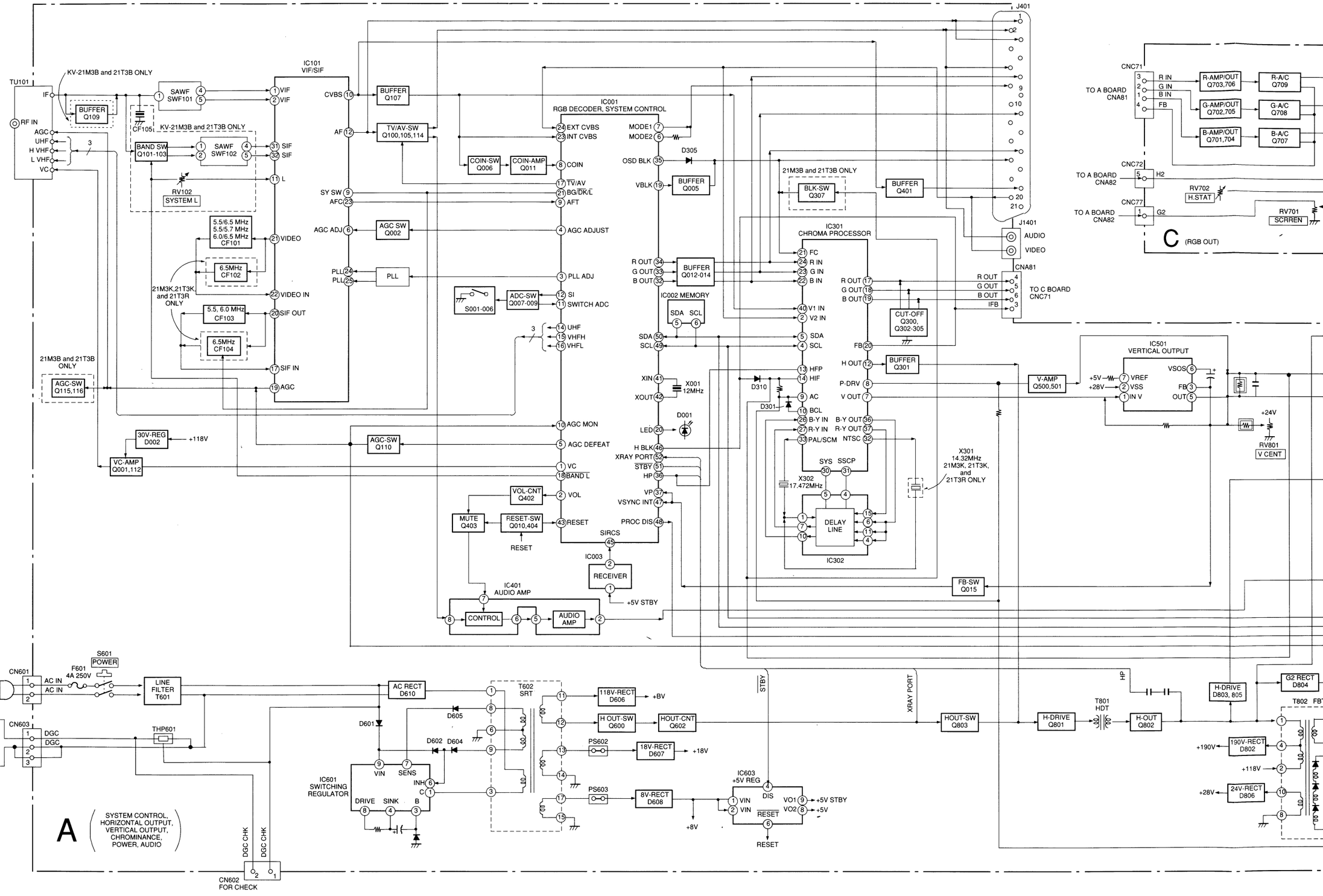
Stby LED

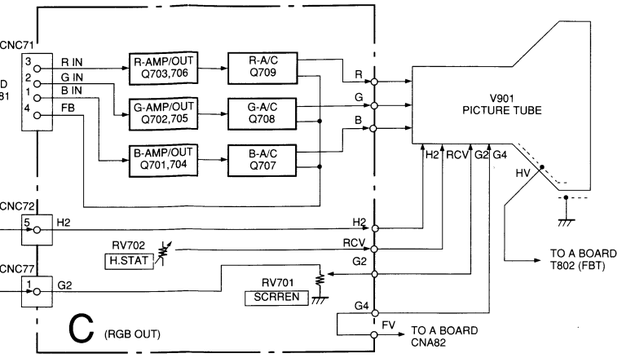


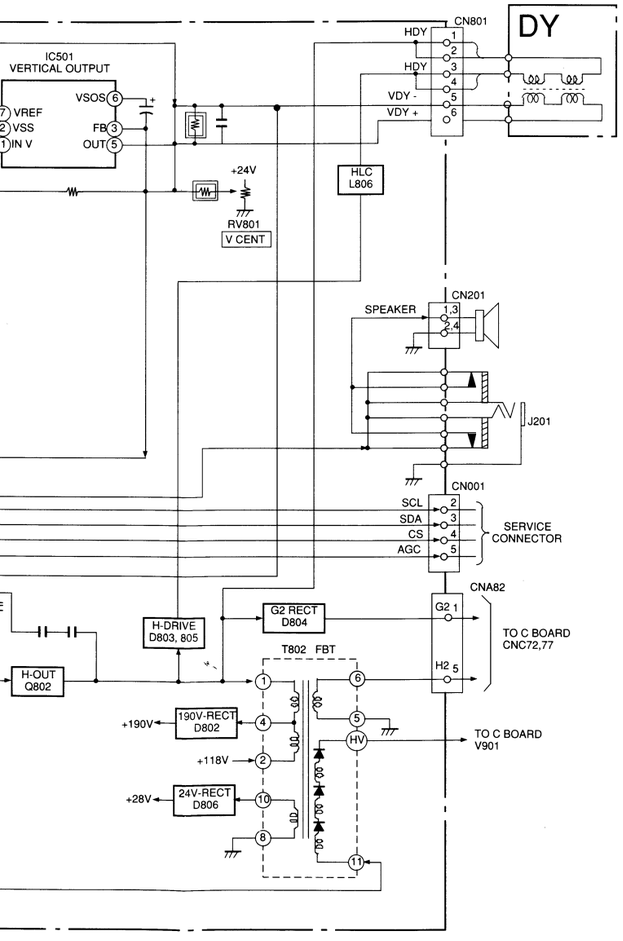
Note : Deflection System Adjustments should not be carried out whilst using an NTSC (60Hz) signal, or if the signal is unlocked.

5.1 BLOCK DIAGRAM

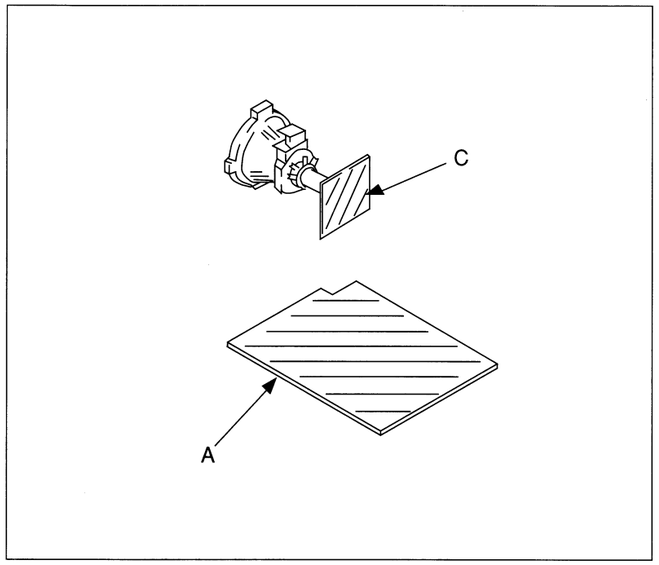
SECTION 5
DIAGRAMS







5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms. k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm Rating electrical power ¼ W

- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth - ground.
- ⏚ : earth - chassis.
- # : no mounted.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part number specified.

Note : Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ⨯	ADJUSTABLE RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10M digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

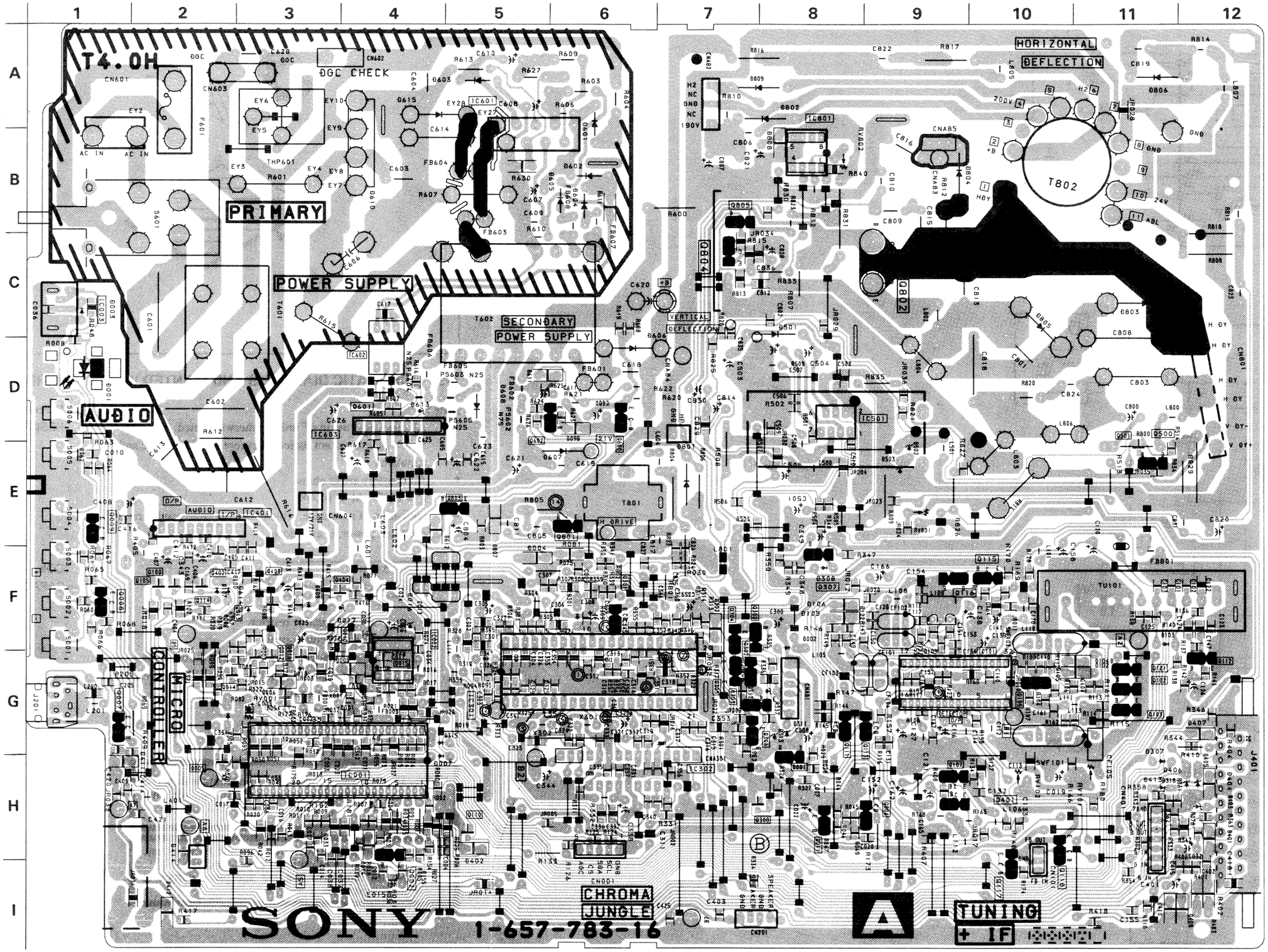
A

SYSTEM CONTROL, HORIZONTAL OUTPUT, VERTICAL OUTPUT, CHROMINANCE, POWER, AUDIO

A BOARD

IC		Q303	G-7	D401	H-12
IC001	H-4	Q304	F-7	D402	H-5
IC002	G-4	Q305	G-7	D403	H-12
IC003	C-1	Q306	G-8	D404	H-12
IC101	G-10	Q307	F-8	D405	H-12
IC301	G-5	Q308	H-7	D406	H-11
IC302	H-7	Q401	H-10	D407	G-12
IC401	E-3	Q402	F-2	D408	I-12
IC501	D-9	Q403	F-3	D409	F-3
IC601	A-5	Q404	F-4	D410	I-11
IC603	D-3	Q600	D-6	D412	I-2
TRANSISTOR		Q602	D-6	D414	H-2
Q001	H-8	Q801	E-6	D501	D-8
Q002	I-4	Q802	C-9	D600	D-6
Q005	H-2	Q803	E-5	D601	A-6
Q006	H-9	Q804	C-7	D602	B-6
Q007	G-1	Q805	B-7	D603	A-5
Q008	F-1	DIODE		D604	B-6
Q009	E-1	D001	D-1	D605	B-6
Q011	H-8	D002	F-8	D606	D-6
Q012	G-3	D003	C-1	D607	E-6
Q013	F-3	D004	F-5	D608	D-5
Q014	G-2	D005	G-4	D610	B-4
Q015	G-4	D006	G-3	D611	D-6
Q016	G-3	D007	H-4	D612	B-5
Q100	F-2	D014	I-4	D613	E-3
Q101	G-11	D016	G-4	D614	F-3
Q102	G-11	D017	F-4	D801	E-7
Q103	G-11	D100	F-3	D802	A-8
Q105	F-2	D102	G-11	D803	C-11
Q107	H-9	D104	G-11	D805	C-10
Q109	G-10	D105	F-8	D806	A-11
Q110	H-5	D106	F-8	D807	E-5
Q111	G-8	D107	F-2	D809	A-8
Q112	G-12	D109	G-9	VARIABLE RESISTOR	
Q113	G-9	D301	F-6		
Q114	F-2	D302	F-7	RV102	H-10
Q115	F-10	D305	G-2	RV801	E-9
Q116	F-9	D307	H-11		
Q300	F-7	D308	F-8		
Q301	F-6	D310	F-5		
Q302	F-7	D315	G-5		

A BOARD



A BOARD *MARK

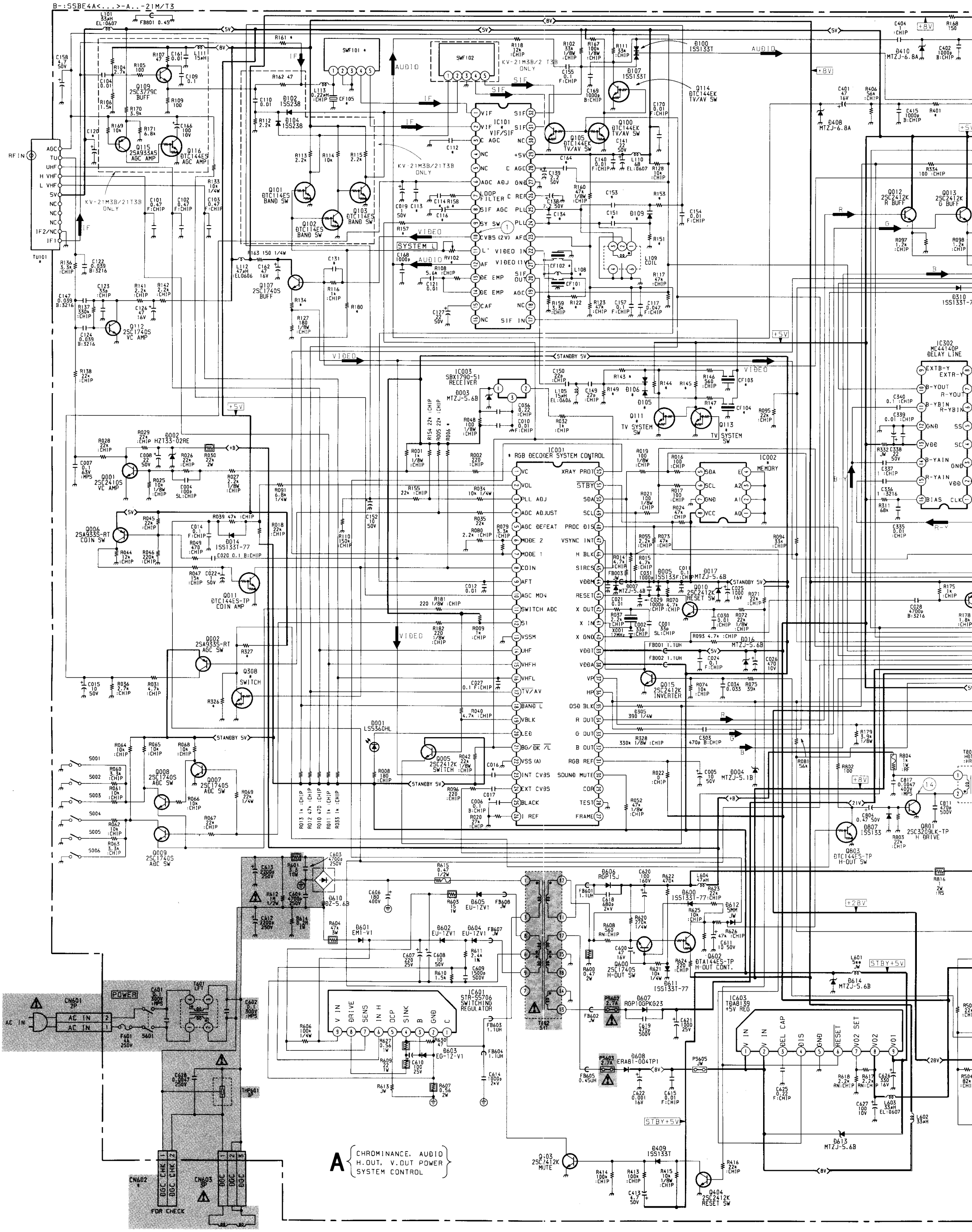
	21M1A/21T1A	21M1B/21T1B	21M1D/21T1D	21M1E/21T1E	21M1K/21T1K	21M1L/21T1L	21T1R	21M1U/21T1U
C16				Refer to "A board	* mark-2" table			
C17				Refer to "A board	* mark-2" table			
C112	—	0.1MF	—	—	—	—	—	—
C113	—	—	0.01MF	—	—	—	—	—
C114	0.22MF	0.1MF	0.22MF	0.22MF	0.22MF	0.22MF	0.22MF	0.22MF
C116	2.2MF	2.2MF	—	—	—	—	—	—
C120	1000MF	1000MF	470MF	470MF	470MF	470MF	470MF	470MF
C131	—	—	—	—	0.001MF	—	0.001MF	—
C134	7PF	7PF	7PF	7PF	—	—	—	—
C151	—	—	—	—	0.001MF	0.001MF	0.001MF	0.001MF
C153	—	—	—	—	15PF	15PF	15PF	15PF
C164	—	1MF	—	—	—	—	—	—
C205	0.0047MF	0.0047MF	0.0047MF	0.0047MF				
C306	0.082MF 50V	0.082MF 100V	0.082MF 50V	0.082MF 50V	0.082MF 50V	0.082MF 50V	0.082MF 50V	0.082MF 50V
C322	—	—	—	—	18PF	—	18PF	—
C416	0.0047MF	0.0047MF	0.0047MF	0.0047MF	—	—	—	—
CF101	5.5/5.74MHz	5.5/6.5MHz	5.5/5.74MHz	5.5/5.74MHz	5.5/5.74MHz	6.0/6.5MHz	5.5/5.74MHz	6.0/6.5MHz
CF102	—	—	—	—	6.5MHz	—	6.5M,Hz	—
CF103	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5.5MHz	6.0MHz	5.5MHz	6.0MHz
CF104	—	—	—	—	6.5MHz	—	6.5M,Hz	—
CF105	—	5.5MHz	—	—	—	—	—	5.5MHz
CN201	3P	3P	3P	3P	4P	3P	4P	3P
CN602	2P	2P	2P	2P	—	—	—	—
D105	—	—	—	—	1SS133T-77	—	1SS133T-77	—
D106	—	—	—	—	1SS133T-77	—	1SS133T-77	—
D109	—	—	—	—	1SV214-TPH3	1SV214-TPH3	1SV214-TPH3	1SV214-TPH3
IC001				Refer to "A board	* mark-2" table			
IC002				Refer to "A board	* mark-2" table			
IC101	TDA9806	TDA9812	TDA9806	TDA9806	TDA9806	TDA9806	TDA9806	TDA9806
IC301	MC44007P	MC44002P	MC44002P	MC44007P	MC44002P	MC44007P	MC44002P	MC44007P
JR011	–	0 : CHIP	–	–	–	–	–	–
L108	8.2µH	8.2µH	8.2µH	8.2µH	4.7µH	8.2µH	4.7µH	8.2µH
Q111	–	–	–	–	DTC144ES-TP	–	DTC144ES-TP	–
Q113	–	–	–	–	DTC144ES-TP	–	DTC144ES-TP	–
Q308	–	DTC144EK-T146	DTC144EK-T146	–	DTC144EK-T146	–	–	–
R006	47K	33K	33K	47K	33K	47K	33K	47K
R122	150	150	150	150	100	150	100	150
R134	180	180	180	180	180	150	180	150
R143	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP	–	0 : CHIP	–	0 : CHIP
R144	–	–	–	–	2.2K	–	2.2K	–
R145	–	–	–	–	2.2K	–	2.2K	–
R147	–	–	–	–	560	–	560	–
R149	–	–	–	–	2.2K	–	2.2K	–
R151	–	–	–	–	100K	100K	100K	100K
R153	–	–	–	–	100K	100K	100K	100K
R157	–	1K	–	–	–	–	–	–
R158	390	180	390	390	390	390	390	390
R161	0 : CHIP	–	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
R162	–	47	–	–	–	–	–	–
R180	–	1K	–	–	–	–	–	–
R326	–	82K	82K	–	82K	–	82K	–
R327	–	100K	100K	–	100K	–	100K	–
R351	–	8.2M	8.2M	–	8.2M	–	8.2M	–
R401	1K	1K	1K	1K	470	470	470	470
R410	75	75	75	75	75	68	75	68
R506	20K 0.5%	20K 0.5%	20K 0.5%	20K 0.5%	20K 5%	20K 5%	20K 5%	20K 5%
RV102	–	22K	–	–	–	–	–	–
SWF101	OPWG1963	OFWK3953	OPWG1963	OPWG1963	OFWK2950	OFWJ1952M	OFWK2950	OFWJ1952M
TU101	BT-AU601	TEL4-002B	TEL4-002B	BT-AU601	BT-AC401	UV1315	TEL4-002B	BT-AU601
X301	–	–	–	–	14.32MHz	–	14.32MHz	–

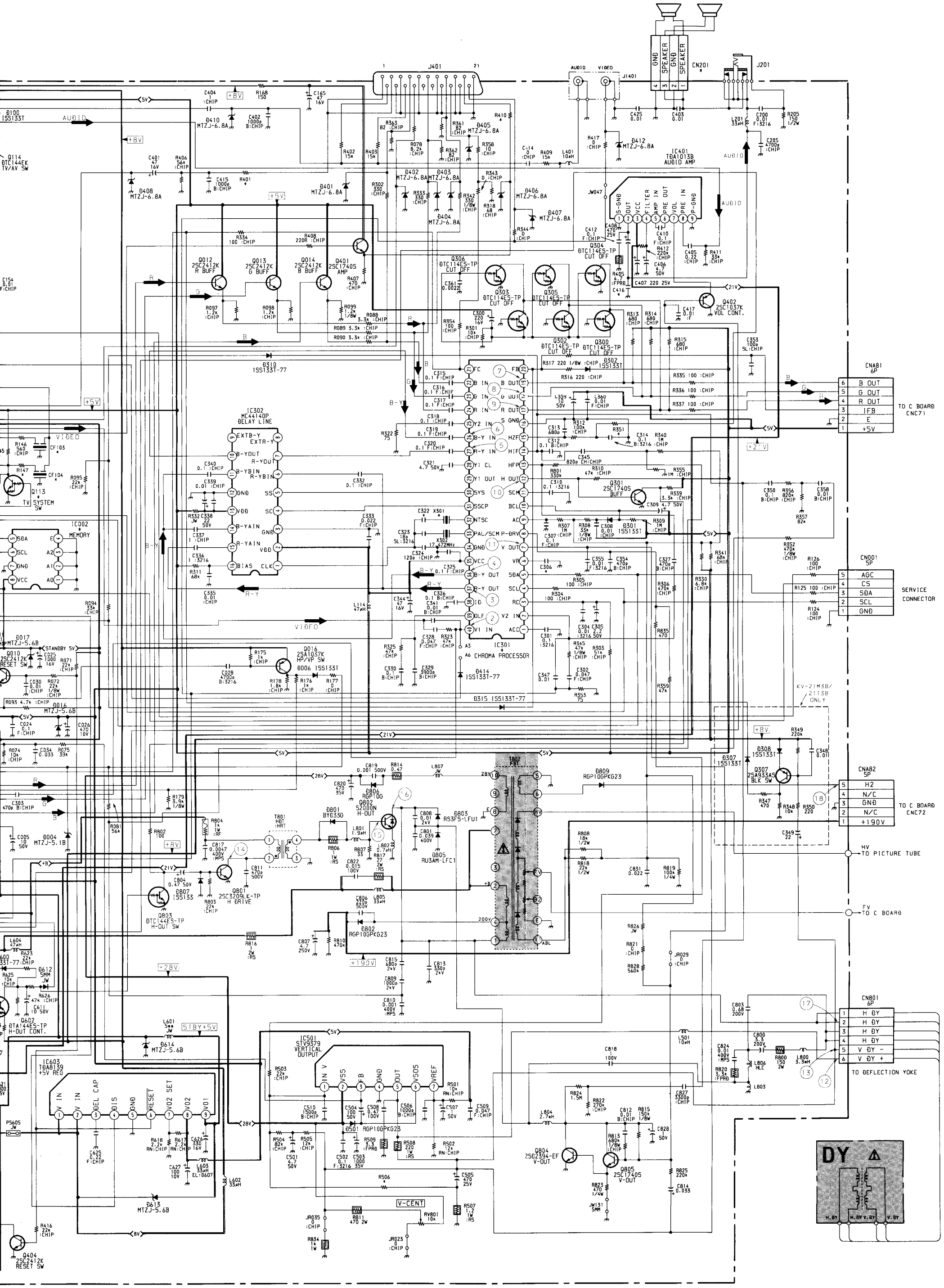
WAVEFORMS A BOARD

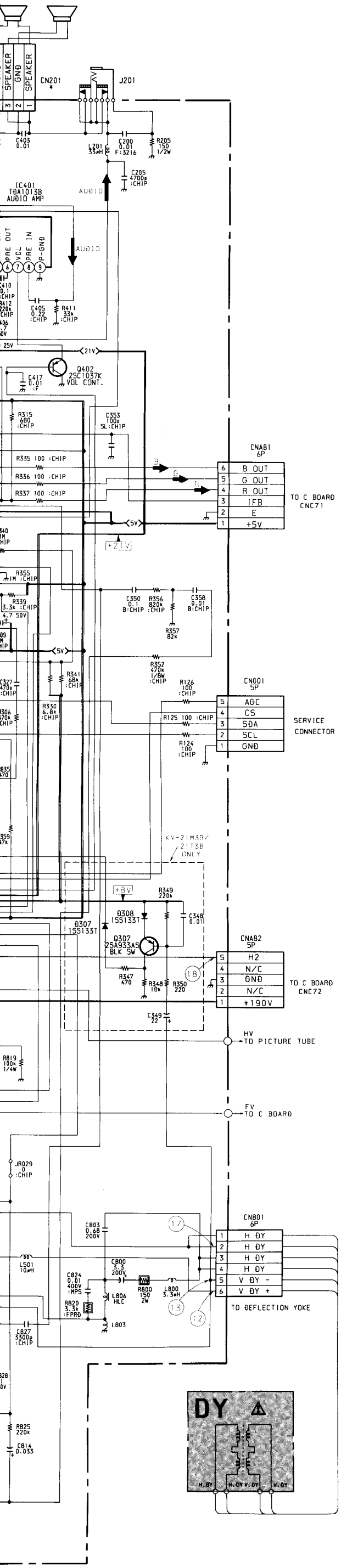
① 2.0 Vp-p (H)	② 1.0 Vp-p (H)	③ 1.0 Vp-p (H)	④ PAL 1.0 Vp-p (H)	④ SECAM/NTSC 1.2 Vp-p (H)
⑤ PAL 1.0 Vp-p (H)	⑤ SECAM 0.5 Vp-p (H)	⑤ NTSC 1.1 Vp-p (H)	⑥ PAL 1.4 Vp-p (H)	⑥ SECAM 0.7 Vp-p (H)
⑥ NTSC 1.5 Vp-p (H)	⑦ 2.0 Vp-p (H)	⑧ 2.3 Vp-p (H)	⑨ 2.3 Vp-p (H)	⑩ 0.8 Vp-p (H)
⑪ 1.8 Vp-p (H)	⑫ 55 Vp-p (H)	⑬ 8.4 Vp-p (H)	⑭ 220 Vp-p (H)	⑮ 10 Vp-p (H)
⑯ 1.4KVp-p (H)	⑰ 210 Vp-p (H)	⑱ 24 Vp-p (H)		

A BOARD *MARK-2

C16	0.1MF	KV-21T3A/21T3B/21T3D/21T3E/21T3K/21T3L/21T3R/21T3U
C17	0.1MF	KV-21T3A/21T3B/21T3D/21T3E/21T3K/21T3L/21T3R/21T3U
IC001	SAA5288ZP/M1/025	KV-21M3A/21M3B/21M3D/21M3E/21M3K/21M3L/21M3U
IC001	SAA5498ZP/M1/014	KV-21T3A/21T3B/21T3E/21T3K/21T3L/21T3U
IC001	SAA5498ZP/M1/016	KV-21T3D
IC001	SAA5498ZP/M1/015	KV-21T3R
IC002	ST24C04FB6	KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/ 21M3K/21M3L/21T3L/21T3R/21M3U/21T3U
IC002	ST24C02FB6	KV-21T3K


B-:SSBE4A<...>-A..-21M/T3
IC101 VIF/SIF
IC001 RGB DECODER SYSTEM CONTROL
IC002 MEMORY
IC003 SBX1790-51 RECEIVER
IC302 MC44140P DELAY LINE
IC601 STR-S5706 SWITCHING REGULATOR
IC603 TDA8139 +5V REG
KV-21M3B/21T3B ONLY
SYSTEM L
POWER
AC IN
FOR CHECK
A CHROMINANCE, AUDIO H.OUT, V.OUT POWER SYSTEM CONTROL


J401
J1401
CN201
J201
IC401 TDA1013B AUDIO AMP
IC301 A3 A6 CHROMA PROCESSOR
IC302 MC44140P DELAY LINE
IC002 MEMORY
IC603 TDA8139 +5V REG
ICS01 STV9379 VERTICAL OUTPUT
IC801 STR-S6709
T801 HOT
CNA81 6P
B OUT
G OUT
R OUT
IFB
E
+5V
TO C BOARD CNC71
CN001 5P
AGC
CS
SDA
SCL
GND
SERVICE CONNECTOR
CNA82 5P
H2
N/C
GND
N/C
+190V
TO C BOARD CNC72
HV
TO PICTURE TUBE
FV
TO C BOARD
CN801 6P
H DY
H DY
H DY
H DY
V DY -
V DY +
TO DEFLECTION YOKE
KV-21M5B/ 21T3B ONLY
DY
H. DY
H. DY V. DY
V. DY
AUDIO
VIDEO
STANDBY 5V
STBY+5V
TV SYSTEM SW
RESET SW
HP/VP SW
H-OUT SW
H-OUT CONT.
V-CENT



A BOARD IC VOLTAGE TABLE

IC Voltage Table			IC Voltage Table			IC Voltage Table			IC Voltage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC001	1	0.7	IC002	5-6	5.0	IC301	18	2.1	IC501	1	2.7
	2	0	IC003	1-2	5.0		19	2.0		3	1.2
	3	2.8	IC101	1-2	3.3		20	3.4		5	18.0
	4	0		3	0.6		21	0		6	26.0
	6	0		6	1.0		22-24	3.0		7	2.7
	7	2.0		7-8	2.5		25-27	3.1	IC601	1	333.0
	8	5.1		9	5.0		28	0.9		2-3	0
	9	3.0		10	2.2		30	0		4	0.4
	11	1.6		11	4.0		31	1.3		5	0
	12	5.0		12-14	2.4		33	2.0		6	1.5
	14	4.1		15	2.0		34	0		7	31.6
	15-16	0.1		17	2.6		36	2.6		8	0.3
	17	0		19	1.8		37	2.3		9	8.1
	18	4.3		20-21	2.0		38	1.0	IC603	3	3.0
	19	0		22	0		39	2.0		4	5.0
	20	4.0		23	3.0		40	3.0		6	2.1
	21	5		24-25	2.6	IC302	1	1.5		7	2.5
	23	2.3		26	2.4		3	0			
	24	0		28	3.0		4	1.3			
	25	2.1		31-32	3.2		5	0			
	26	2.4	IC301	1	0.5		6-7	1.5			
	30-31	5.0		2	0.8		10-11	1.4			
	32-35	0		3	1.3		12	0			
	36	0.3		4-5	5.0		14	1.1			
	37	0.2		6	0.9		15	1.2			
	40	0		7	2.3		16	1.5			
	41	2.0		8	0.6	IC401	2	8.8			
	42	2.5		9	1.2		4	18.0			
	43	0		10	2.5		5	1.3			
	44	5.0		11	2.3		6	6.7			
	45	3.4		12	0.4		7	2.0			
	46	0		13	0.5		8	2.8			
	47	0.2		14	0.2						
	48	2.5		15	2.0						
	49-51	5.0		16	0						
	52	0.1		17	2.2						

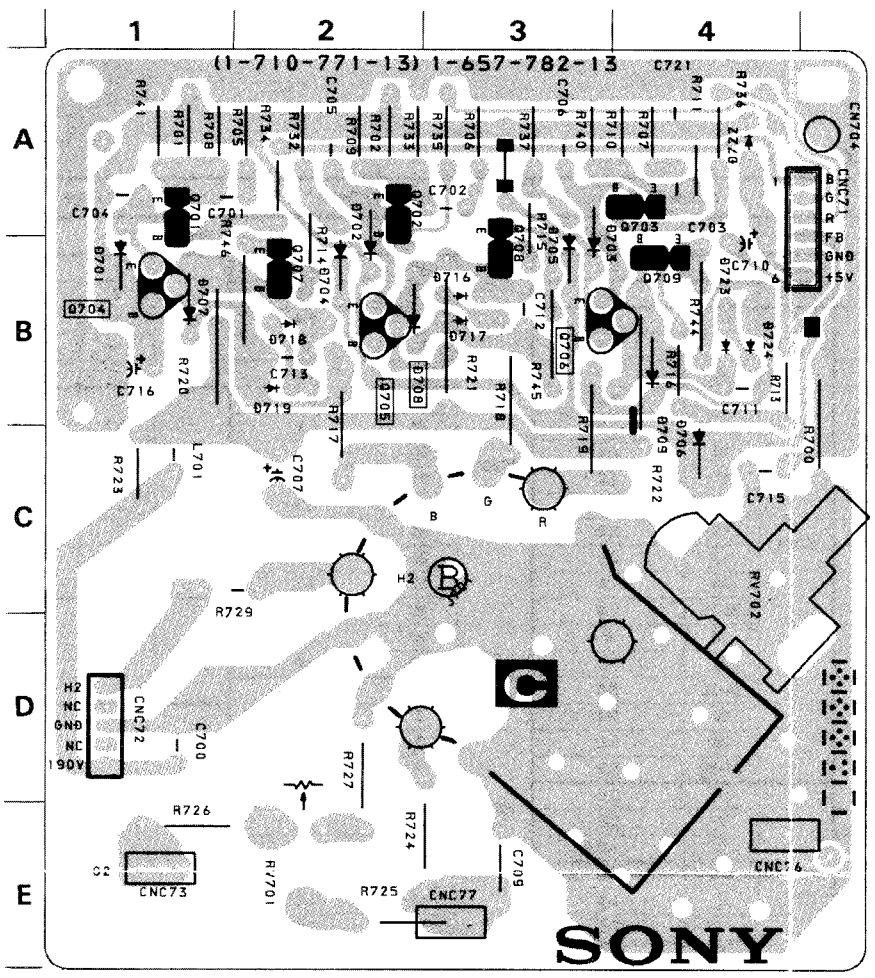
A BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q001	0.2	13.5	-
Q005	0	5.0	0
Q006	4.7	0.6	5.0
Q007	0.6	0	-
Q008	0	5.1	4.5
Q009	5.0	5.1	4.5
Q010	0.6	0	-
Q011	5.0	5.0	-
Q012	0	5.0	0
Q013	0	5.0	0
Q014	0	5.0	0
Q100	0	2.0	-
Q101	4.3	0	-
Q102	4.3	0	-
Q103	0	4.7	-
Q105	0	2.7	-
Q107	3.0	7.7	2.1
Q112	0.6	2.2	-
Q114	2.0	0	-
Q300	-	2.0	0
Q301	0.3	0.6	0
Q302	0	2.1	0
Q303	0	2.2	0
Q304	0	2.0	-
Q305	0	2.1	-
Q306	0	2.2	-
Q307	11.6	0.3	8.6
Q401	2.2	8.0	1.6
Q402	1.3	-	2.0
Q403	0	1.3	-
Q404	0.5	0	-
Q600	1.0	0.4	0.4
Q602	0.4	8.4	8.4
Q801	0	105.0	-
Q802	-0.2	120.0	0
Q803	0.1	0.6	-

C

[R,G,B OUT]

C BOARD

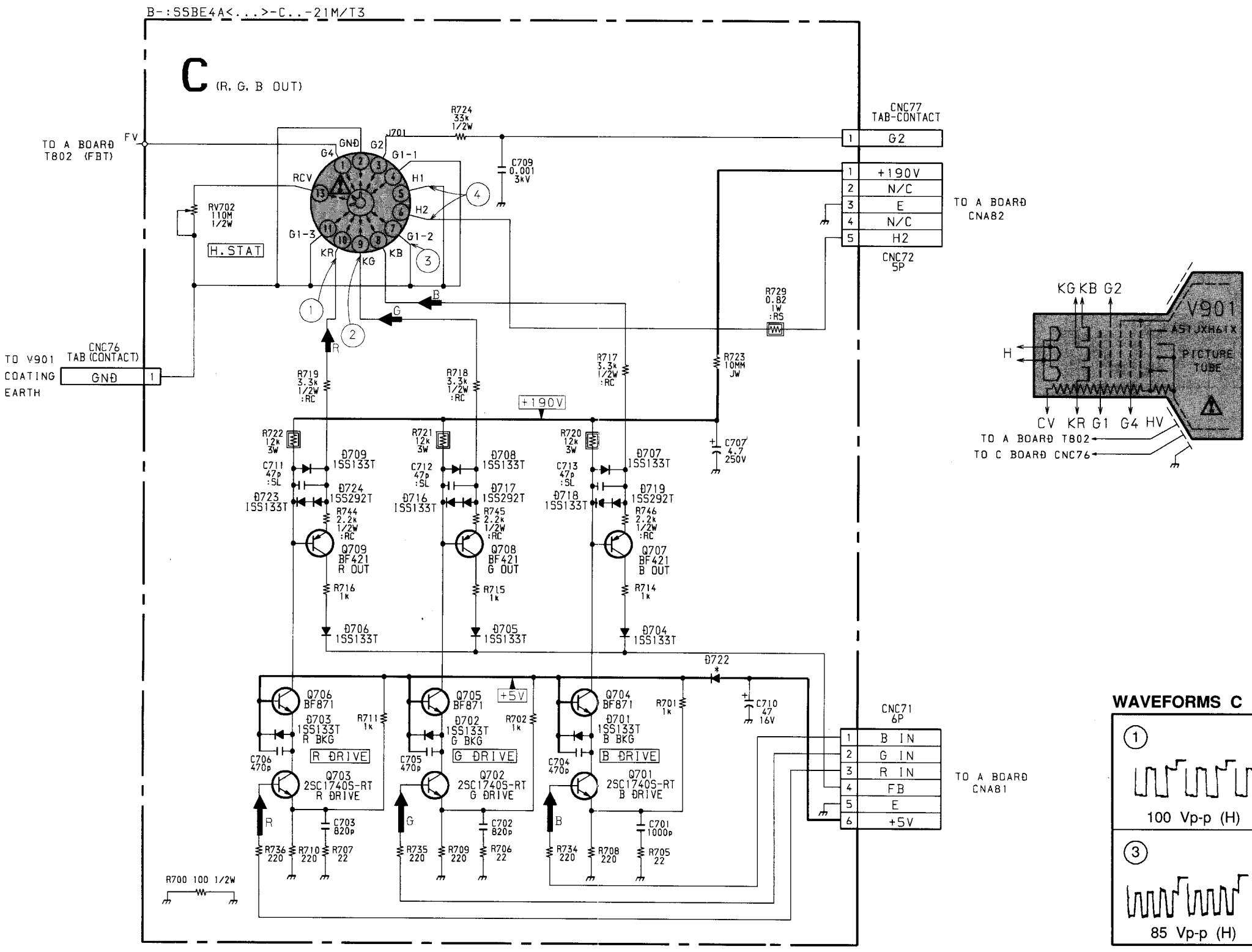


C BOARD
TRANSISTOR VOLTAGE TABLE

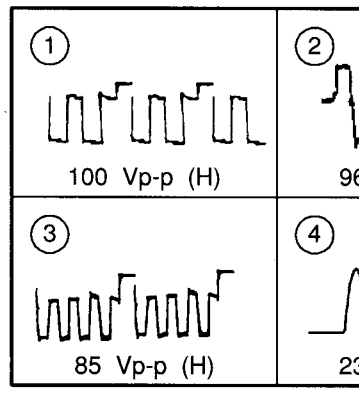
Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q701	2.1	-	1.5
Q702	2.1	-	1.5
Q703	2.1	-	1.5
Q704	5.0	154.8	4.25
Q705	5.0	149.3	4.25
Q706	5.0	150.2	4.25
Q707	155.3	3.4	153.8
Q708	149.7	3.3	148.2
Q709	151.0	3.3	146.5

C BOARD *MARK

	21M1A/21T1A	21M1B/21T1B	21M1D/21T1D	21M1E/21T1E	21M1K/21T1K	21M1L/21T1L	21T1R	21M1U/21T1U
D722	ISS133T-77	ISS133T-77	ISS133T-77	ISS133T-77	–	–	–	–

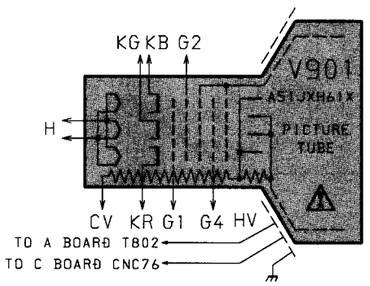


WAVEFORMS C BOARD



	21M1L/21T1L	21T1R	21M1U/21T1U
	–	–	–

TO A BOARD
CNA82



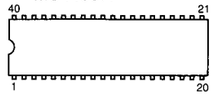
WAVEFORMS C BOARD

TO A BOARD
CNA81

① 100 Vp-p (H)	② 96 Vp-p (H)
③ 85 Vp-p (H)	④ 23 Vp-p (H)

5-4. SEMICONDUCTORS

MC44002P
MC44007P

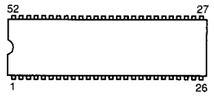


(TOP VIEW)

MC44140P

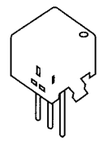
(TOP VIEW)

SAA5288ZP/014
SAA5498ZP/014

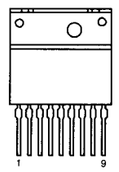


(TOP VIEW)

SBX1790-51



STR-S5706



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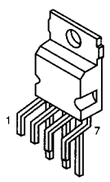

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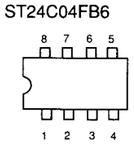
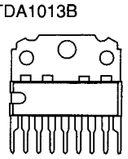
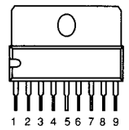


(TOP VIEW)

TDA1013B



TDA8139



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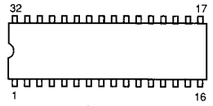
TDA9812



(TOP VIEW)

BF421
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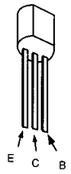

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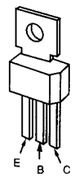

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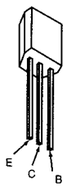

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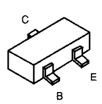
2SA1037K
2SC2412K-QR



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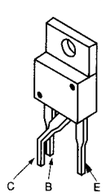

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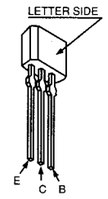
2SC2410SN



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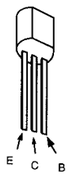

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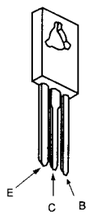

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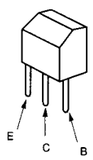

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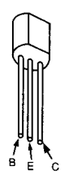

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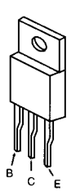
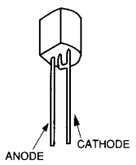
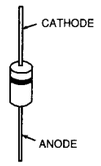
2SD1761-E
2SD2394-EF



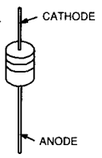
HZT33-02RE
UPC574J



BYD33G	EU-1Z
EG-1Z-V1	RGP02-17EL-6433
EGP20G	RGP02-17PKG23
EL1Z	RGP10GPKG23
EM1-V1	RGP15J-6040FG23
ERC06-15S	RU3AM
ERD28-06S	1SS168
ERD28-08S	1SS238



ERA81-004	RD5.1ESB2
ERA83-006	RD5.6ESB2
MTZJ-5.1B	RD6.8ESB2
MTZJ-5.6B	1SS133T-77
MTZJ-6.8A	



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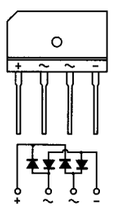

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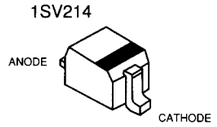

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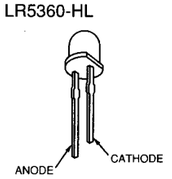
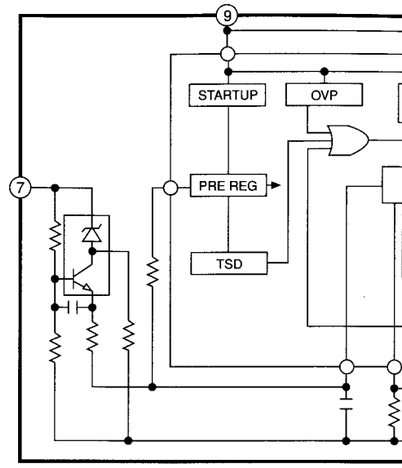


5.5 IC BLOCK DIAGRAMS

A BOARD IC601 STRS5706



5-4. SEMICONDUCTORS

MC44002P
MC44007P

(TOP VIEW)

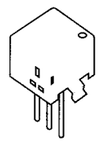
MC44140P

(TOP VIEW)

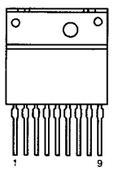
SAA5288ZP/014
SAA5498ZP/014

(TOP VIEW)

SBX1790-51



STR-S5706



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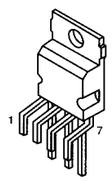

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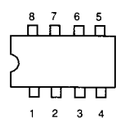
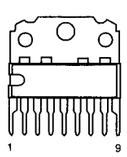


(TOP VIEW)

TDA1013B



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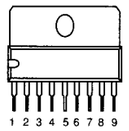

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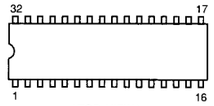

(TOP VIEW)

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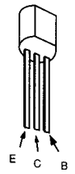

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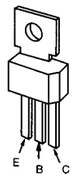

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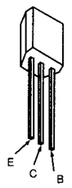

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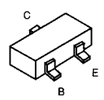

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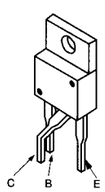

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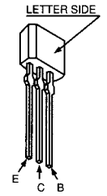

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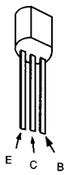

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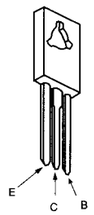

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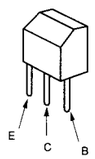

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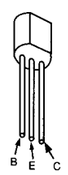

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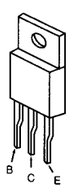

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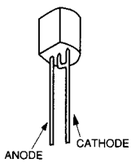
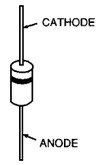


BYD33G	EU-1Z
EG-1Z-V1	RGP02-17EL-6433
EGP20G	RGP02-17PKG23
EL1Z	RGP10GPKG23
EM1-V1	RGP15J-6040FG23
ERC06-15S	RU3AM
ERD28-06S	1SS168
ERD28-08S	1SS238



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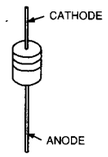
ERA83-006	RD5.6ESB2
MTZJ-5.1B	RD6.8ESB2
MTZJ-5.6B	1SS133T-77
MTZJ-6.8A	



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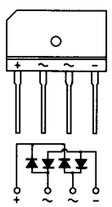
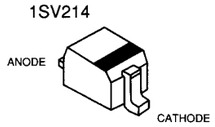


1SV214



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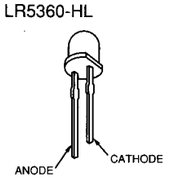
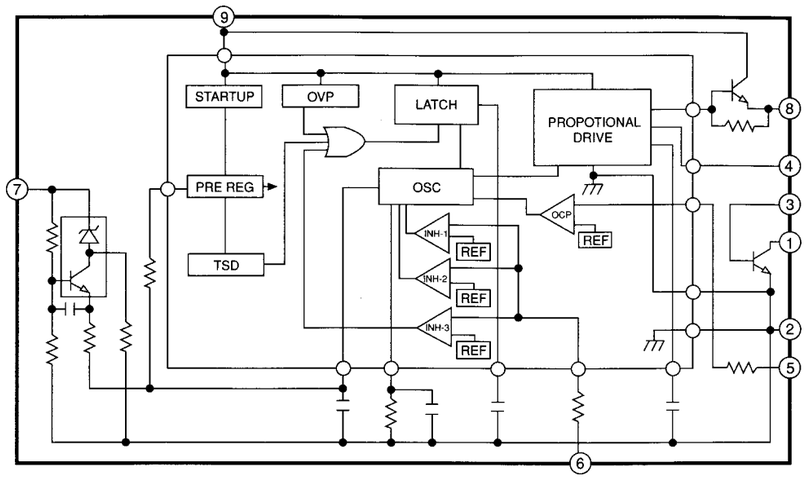


5.5 IC BLOCK DIAGRAMS

A BOARD IC601 STRS5706



SECTION 6
EXPLODED VIEWS

NOTE :

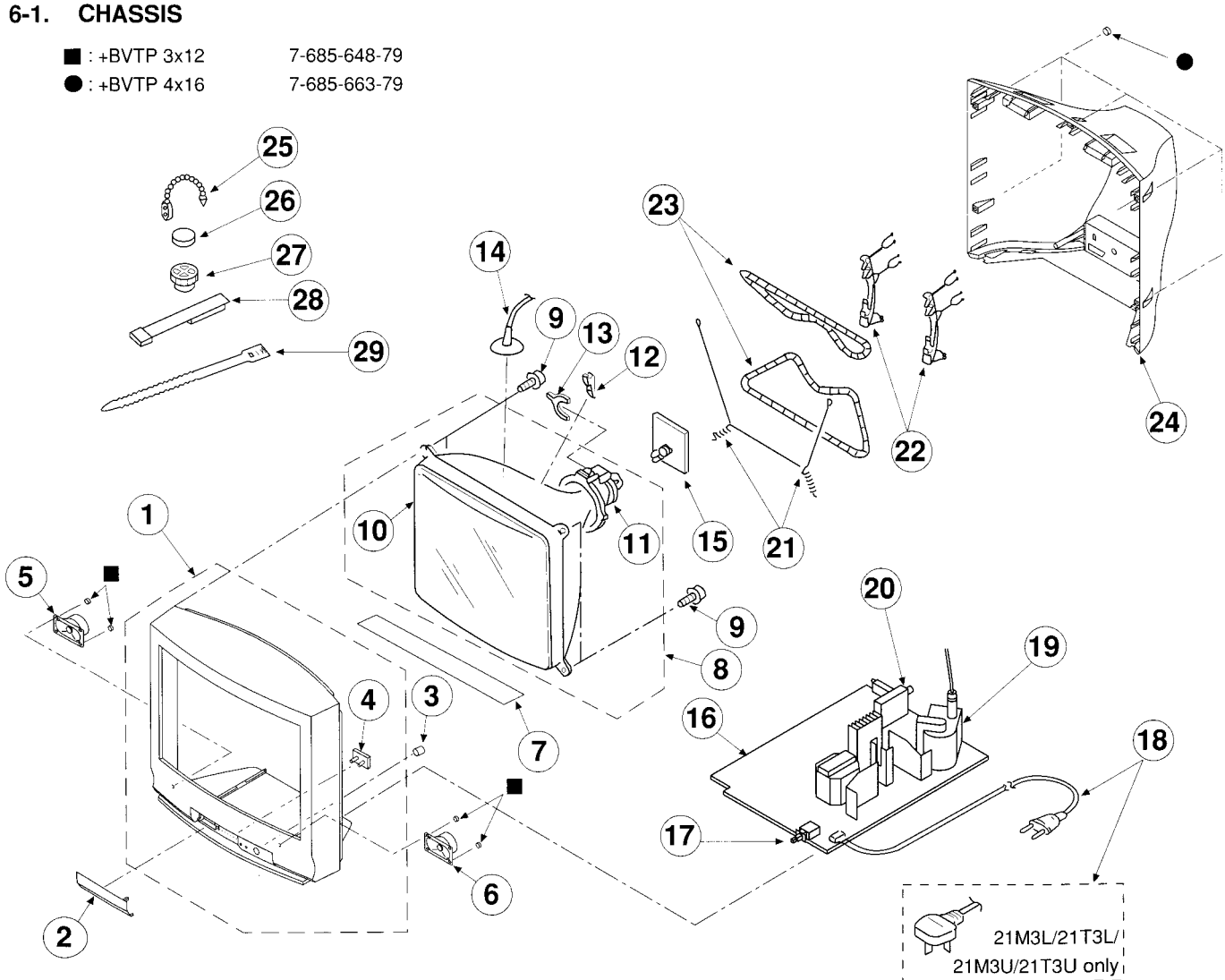
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ! sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

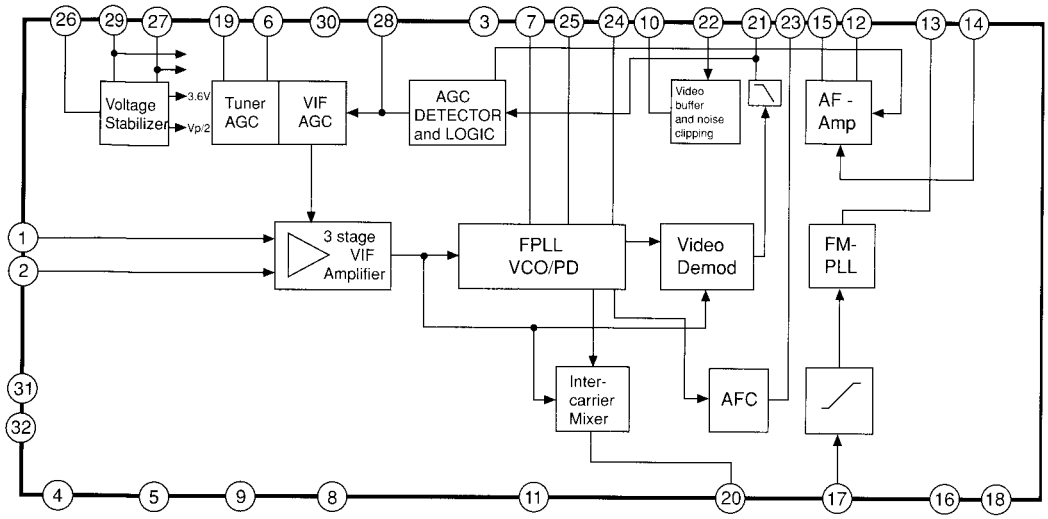
6-1. CHASSIS

■ : +BVTP 3x12 7-685-648-79
● : +BVTP 4x16 7-685-663-79

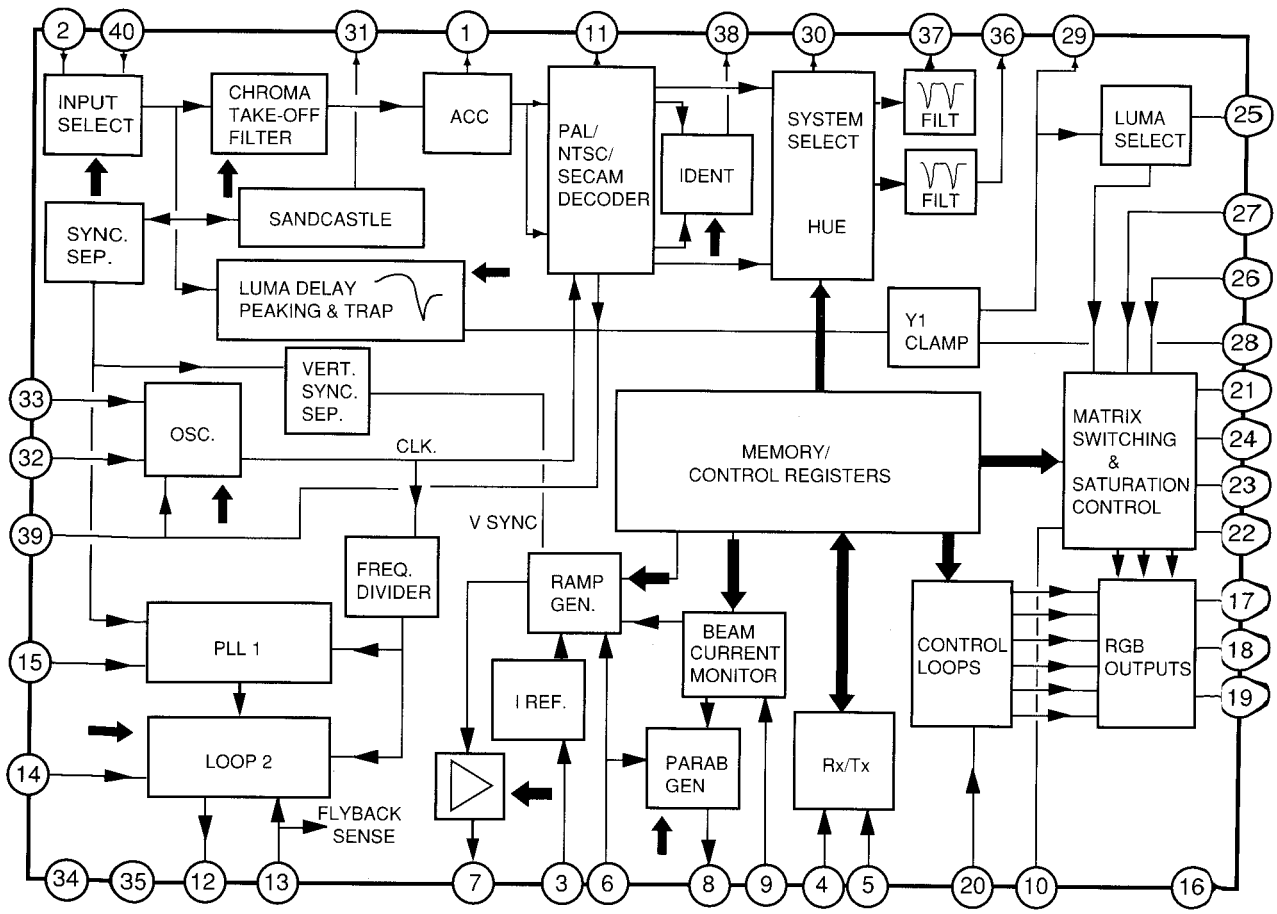


REF NO	PART NO	DESCRIPTION	REMARK
1	X-4200-317-1	BEZNET ASSY (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	4
	X-4200-313-1	BEZNET ASSY (KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
2	4-203-743-11	DOOR (BARE) (KV-21M3A/21M3B/21M3D/21M3E/21M3K/21M3L/21M3U)	
	4-203-793-01	DOOR (PRINTED) (KV-21T3A/21T3B/21T3D/21T3E/21T3K/21T3L/21T3R/21T3U)	
3	4-203-744-11	BUTTON, POWER	
4	*4-203-738-01	GUIDE, LIGHT	
5	1-504-698-21	SPEAKER (9X5CM) (KV-21M3K/21T3K/21T3R)	
6	1-503-258-21	SPEAKER (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)	
	1-504-698-21	SPEAKER (9X5CM) (KV-21M3K/21T3K/21T3R)	
7	4-203-553-01	SHEET, BLOTTING	
8	⚠ 8-738-784-72	ITC	10-11
9	4-365-808-01	SCREW (5), TAPPING	
10	⚠ 8-738-784-05	PICTURE TUBE (SD169) (A51JXB61X)	
11	⚠ 8-451-295-45	DEFLECTION YOKE (Y21PFA2BA)	
12	3-704-495-01	SPACER, DY	
13	1-452-277-00	MAGNET, BMC	
14	⚠ 1-540-006-22	CAP ASSY, HIGH-VOLTAGE	

A BOARD IC101 TDA9806/TDA9812



A BOARD IC301 MC44002/MC44007P



The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

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Ne les remplacer que par une piece portant le numero specifie.

REF NO		PART NO	DESCRIPTION	REMARK
15		*A-1638-104-A	C BOARD, COMPLETE (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
		*A-1638-103-A	C BOARD COMPLETE (KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
16		*A-1632-634-A	A BOARD, COMPLETE	(KV-21M3A)
		*A-1632-637-A	A BOARD, COMPLETE	(KV-21T3A)
		*A-1632-639-A	A BOARD, COMPLETE	(KV-21M3B)
		*A-1632-641-A	A BOARD, COMPLETE	(KV-21T3B)
		*A-1632-635-A	A BOARD, COMPLETE	(KV-21M3D)
		*A-1632-636-A	A BOARD, COMPLETE	(KV-21T3D)
		*A-1632-640-A	A BOARD, COMPLETE	(KV-21M3E)
		*A-1632-633-A	A BOARD, COMPLETE	(KV-21T3E)
		*A-1632-624-A	A BOARD, COMPLETE	(KV-21M3K)
		*A-1632-625-A	A BOARD, COMPLETE	(KV-21T3K)
		*A-1632-645-A	A BOARD, COMPLETE	(KV-21M3L)
		*A-1632-646-A	A BOARD, COMPLETE	(KV-21T3L)
		*A-1632-642-A	A BOARD, COMPLETE	(KV-21T3R)
		*A-1632-643-A	A BOARD, COMPLETE	(KV-21M3U)
		*A-1632-644-A	A BOARD, COMPLETE	(KV-21T3U)
17	⚠	1-571-433-21	SWITCH PUSH (AC POWER)	
18	⚠	1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21T3R)	
	⚠	1-590-762-11	CORD, POWER (WITH PLUG) 3A/250V (KV-21M3L/21T3L/21M3U/21T3U)	
19	⚠	1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2)	
20		8-598-331-02	TUNER (BT-AC401) (KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K)	
		1-693-310-13	TUNER (TELE4-002B) (KV-21M3B/21T3B/21T3R)	
		1-693-302-11	TUNER (UV1315) (KV-21M3L/21T3L/21M3U/21T3U)	
21		4-369-318-21	SPRING, TENSION (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
		4-200-433-01	SPRING, EXTENSION (KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
22		*A-386-622-11	BAND, DGC (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
		*4-386-622-01	BAND, DGC (KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
23	⚠	1-411-922-11	COIL, DEGAUSSING (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
	⚠	1-406-612-11	COIL, DEGAUSING (KV-21M3K/21T3R/21M3L/21T3L/21T3R/21M3U/21T3U)	
24		4-203-429-02	COVER (REAR) (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
		4-203-437-02	COVER (REAR) (KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
25		4-308-870-00	CLIP, LEAD WIRE	
26		1-452-032-00	MAGNET, DISK; 10MM Ø	
27		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
28		X-4387-214-1	PERMALLOY ASSY, CORRECTION	
29		3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS
MF : mF, PF : mmF

COILS
MMH : mH, μH : mH

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

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Ne les remplacer que par une piece portant le numero specifie.

A

REF.NO.	PART NO.	DESCRIPTION		REMARK
	*A-1632-634-A	A BOARD, COMPLETE (KV-21M3A)		
		**********		
	*A-1632-637-A	A BOARD, COMPLETE (KV-21T3A)		
		**********		
	*A-1632-639-A	A BOARD, COMPLETE (KV-21M3B)		
		**********		
	*A-1632-641-A	A BOARD, COMPLETE (KV-21T3B)		
		**********		
	*A-1632-635-A	A BOARD, COMPLETE (KV-21M3D)		
		**********		
	*A-1632-636-A	A BOARD, COMPLETE (KV-21T3D)		
		**********		
	*A-1632-640-A	A BOARD, COMPLETE (KV-21M3E)		
		**********		
	*A-1632-633-A	A BOARD, COMPLETE (KV-21T3E)		
		**********		
	*A-1632-624-A	A BOARD, COMPLETE (KV-21M3K)		
		**********		
	*A-1632-625-A	A BOARD, COMPLETE (KV-21T3K)		
		**********		
	*A-1632-645-A	A BOARD, COMPLETE (KV-21M3L		
		**********		
	*A-1632-646-A	A BOARD, COMPLETE (KV-21T3L)		
		**********		
	*A-1632-642-A	A BOARD, COMPLETE (KV-21T3R)		
		**********		
	*A-1632-643-A	A BOARD, COMPLETE (KV-21M3U)		
		**********		
	*A-1632-644-A	A BOARD, COMPLETE (KV-21T3U)		
		**********		
	4-202-373-01	SPRING, IC		
	*4-368-683-11	SPRING, TRANSISTOR		
	4-382-854-11	SCREW (M3X10), P, SW (+)		
		< CAPACITOR >		
C001	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C002	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C004	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C005	1-126-964-11	ELECT 10MF	20%	50V
C006	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C007	1-130-777-00	FILM 0.1MF	5%	63V
C008	1-126-965-11	ELECT 22MF	20%	50V
C010	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C011	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C012	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C014	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C015	1-126-964-11	ELECT 10MF	20%	50V
C016	1-163-038-00	CERAMIC CHIP 0.1MF		25V
		(KV-21T3A/21T3B/21T3D/21T3E/ 21T3K/21T3L/21T3R/21T3U)		
C017	1-163-038-00	CERAMIC CHIP 0.1MF		25V
		(KV-21T3A/21T3B/21T3D/21T3E/ 21T3K/21T3L/21T3R/21T3U)		
C019	1-126-960-11	ELECT 1MF	20%	50V
C020	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C021	1-163-059-00	CERAMIC CHIP 0.01MF		50V
C022	1-126-960-11	ELECT 1MF	20%	50V
C024	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C025	1-107-884-11	ELECT 1000MF	20%	16V
C026	1-126-925-11	ELECT 470MF	20%	10V
C027	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C028	1-163-055-00	CERAMIC CHIP 0.0047MF	10%	50V
C029	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C030	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C031	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C034	1-130-489-00	FILM 0.033MF	5%	50V
C036	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C101	1-164-005-11	CERAMIC CHIP 0.47MF		16V
C102	1-164-005-11	CERAMIC CHIP 0.47MF		16V
C103	1-164-005-11	CERAMIC CHIP 0.47MF		16V
C104	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
				(KV-21M3B/21T3B)
C109	1-163-038-00	CERAMIC CHIP 0.1MF		25V
				(KV-21M3B/21T3B)
C110	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
				(KV-21M3B/21T3B)
C112	1-137-399-11	FILM 0.1MF	5%	50V
				(KV-21M3B/21T3B)
C113	1-163-059-91	CERAMIC CHIP 0.01MF		16V
				(KV-21M3D/21T3D)
C114	1-136-169-00	FILM 0.22MF	5%	50V
		(KV-21M3A/21T3A/21M3D/21T3D/21M3E/ 21T3E/21M3K/21T3K/21M3L/21T3L/ 21T3R/21M3U/21T3U)		
	1-136-165-00	FILM 0.1MF	5%	50V
				(KV-21M3B/21T3B)
C116	1-126-961-11	ELECT 2.2MF	20%	50V
		(KV-21M3A/21T3A/21M3B/21T3B)		
C117	1-163-035-00	CERAMIC CHIP 0.047MF		50V
C120	1-126-926-11	ELECT 1000MF	20%	10V
		(KV-21M3A/21T3A/21M3B/21T3B)		
	1-126-925-11	ELECT 470MF	20%	10V
		(KV-21M3D/21T3D/21M3D/21T3D/21M3E/ 21T3E/21M3L/21T3L/21T3R/21M3U/ 21T3U)		
C121	1-136-153-00	FILM 0.01MF	5%	50V

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C122	1-164-665-11	CERAMIC CHIP 0.039MF 10% 50V	
C123	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C124	1-164-665-11	CERAMIC CHIP 0.039MF 10% 50V	
C126	1-126-967-11	ELECT 47MF 20% 16V	
C127	1-126-965-11	ELECT 22MF 20% 50V	
C131	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	(KV-21M3K/21T3K/21T3R)
C134	1-163-090-00	CERAMIC CHIP 7PF 0.25PF 50V	(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)
C138	1-126-961-11	ELECT 2.2MF 20% 50V	
C139	1-126-961-11	ELECT 2.2MF 20% 50V	
C140	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C141	1-126-965-11	ELECT 22MF 20% 50V	
C147	1-164-665-11	CERAMIC CHIP 0.039MF 10% 50V	
C149	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	
C150	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	
C151	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V	(KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
C152	1-126-964-11	ELECT 10MF 20% 50V	
C153	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	(KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
C154	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C155	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C157	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C158	1-126-963-11	ELECT 4.7MF 20% 50V	
C161	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	(KV-21M3B/21T3B)
C162	1-126-967-11	ELECT 47MF 20% 16V	
C164	1-162-638-11	CERAMIC CHIP 1MF 16V	(KV-21M3B/21T3B)
C165	1-126-967-11	ELECT 47MF 20% 16V	
C166	1-126-933-11	ELECT 100MF 20% 10V	(KV-21M3B/21T3B)
C168	1-163-205-00	CERAMIC CHIP 0.001MF 10% 50V	
C169	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C170	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C200	1-163-059-00	CERAMIC CHIP 0.01MF 50V	
C205	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)
C300	1-126-934-11	ELECT 220MF 20% 16V	
C301	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V	
C302	1-163-035-00	CERAMIC CHIP 0.047MF 50V	
C303	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C304	1-163-059-91	CERAMIC CHIP 0.01MF 10% 50V	
C305	1-126-961-11	ELECT 2.2MF 20% 50V	
C306	1-136-164-00	FILM 0.082MF 5% 100V	(KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
	1-137-580-11	FILM 0.082MF 5% 50V	(KV-21M3B/21T3B)
C307	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C308	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C309	1-126-963-11	ELECT 4.7MF 20% 50V	
C310	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V	
C312	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C313	1-163-007-11	CERAMIC CHIP 680PF 10% 50V	
C314	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V	
C315	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C316	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C317	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C318	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C319	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C320	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C321	1-126-963-11	ELECT 4.7MF 20% 50V	
C322	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	(KV-21M3K/21T3K/21T3R)
C323	1-163-163-00	CERAMIC CHIP 18PF 5% 50V	
C324	1-163-119-00	CERAMIC CHIP 120PF 5% 50V	
C325	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C326	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C327	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C328	1-163-035-00	CERAMIC CHIP 0.047MF 50V	
C329	1-163-016-00	CERAMIC CHIP 0.0039MF 10% 50V	
C330	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C332	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C333	1-163-033-91	CERAMIC CHIP 0.022MF 50V	
C335	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C336	1-162-638-11	CERAMIC CHIP 1MF 16V	
C337	1-162-638-11	CERAMIC CHIP 1MF 16V	
C338	1-126-965-11	ELECT 22MF 20% 50V	
C339	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C340	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C341	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C344	1-126-967-11	ELECT 47MF 20% 16V	
C345	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
C347	1-163-059-91	CERAMIC CHIP 0.01MF 10% 50V	
C348	1-163-031-11	CERAMIC CHIP 0.01MF 50V	(KV-21M3B/21T3B)
C349	1-126-965-11	ELECT 22MF 20% 50V	(KV-21M3B/21T3B)
C350	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C353	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C354	1-163-197-00	CERAMIC CHIP 470PF 10% 50V	
C355	1-163-059-00	CERAMIC CHIP 0.01MF 50V	
C358	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C359	1-126-964-11	ELECT 10MF 20% 50V	
C360	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C361	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C401	1-126-967-11	ELECT 47MF 20% 16V	
C402	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C403	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C404	1-164-346-11	CERAMIC CHIP 1MF 16V	
C405	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C406	1-126-963-11	ELECT 4.7MF 20% 50V	
C407	1-104-666-11	ELECT 220MF 20% 25V	
C408	1-126-941-11	ELECT 470MF 20% 25V	
C410	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C412	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C413	1-126-963-11	ELECT 4.7MF 20% 50V	
C414	1-216-295-00	CONDUCTOR, CHIP	
C415	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C416	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)
C417	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C425	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	

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Ne les remplacer que par une piece portant le numero specifie.

A

REF.NO.		PART NO.	DESCRIPTION			REMARK
C501		1-126-963-11	ELECT	4.7MF	20%	50V
C502		1-163-077-00	CERAMIC CHIP	0.1MF		50V
C503		1-126-952-11	ELECT	1000MF	20%	35V
C504		1-126-968-11	ELECT	100MF	20%	50V
C505		1-126-941-11	ELECT	470MF	20%	25V
C506		1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C507		1-126-960-11	ELECT	1MF	20%	50V
C508		1-130-785-11	MYLAR	0.47MF	10%	100V
C509		1-163-035-00	CERAMIC CHIP	0.047MF		50V
C510		1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C600		1-126-967-11	ELECT	47MF	20%	16V
C601	!	1-136-516-12	FILM	0.1MF	20%	300V
C602	!	1-136-516-12	FILM	0.1MF	20%	300V
C603	!	1-161-964-91	CERAMIC	0.0047MF		250V
C604	!	1-161-964-91	CERAMIC	0.0047MF		250V
C606		1-113-473-11	ELECT(BLOCK)	180MF	20%	400V
C607		1-104-666-11	ELECT	220MF	20%	25V
C608		1-126-964-11	ELECT	10MF	20%	50V
C609		1-109-921-11	CERAMIC	0.0015MF	10%	500V
C610		1-104-665-11	ELECT	100MF	20%	25V
C611		1-126-964-11	ELECT	10MF	20%	50V
C612	!	1-113-907-51	CERAMIC	0.0022MF	20%	250V
C613	!	1-113-907-51	CERAMIC	0.0022MF	20%	250V
C614		1-136-538-11	FILM	0.001MF	3%	2KV
C615		1-163-031-11	CERAMIC CHIP	0.01MF		50V
C618		1-162-116-00	CERAMIC	680PF	10%	2KV
C619		1-102-228-00	CERAMIC	470PF	10%	500V
C620		1-124-347-00	ELECT	100MF	20%	160V
C621		1-126-942-61	ELECT	1000MF	20%	25V
C622		1-111-041-11	ELECT	0.001F	20%	16V
C625		1-163-081-00	CERAMIC CHIP	0.22MF		25V
C626		1-104-661-91	ELECT	330MF	20%	16V
C627		1-126-933-11	ELECT	100MF	20%	10V
C628	!	1-161-964-91	CERAMIC	0.0047MF		250V
C800		1-107-642-91	ELECT	3.3MF	20%	200V
C801		1-129-746-00	FILM	0.039MF	10%	400V
C803		1-136-109-00	FILM	0.68MF	5%	200V
C804		1-126-959-11	ELECT	0.47MF	20%	50V
C806		1-102-244-00	CERAMIC	220PF	10%	500V
C807		1-107-651-11	ELECT	4.7MF	20%	250V
C808		1-136-079-00	FILM	0.01MF	3%	2KV
C809		1-161-754-00	CERAMIC	0.001MF	10%	2KV
C810		1-129-702-00	FILM	0.001MF	10%	400V
C811		1-102-228-00	CERAMIC	470PF	10%	500V
C812		1-163-059-91	CERAMIC CHIP	0.01MF	10%	50V
C813		1-162-115-00	CERAMIC	330PF	10%	2KV
C814		1-136-159-00	FILM	0.033MF	5%	50V
C815		1-162-116-00	CERAMIC	680PF	10%	2KV
C817		1-136-559-11	MYLAR	0.0047MF	10%	400V
C818		1-136-933-11	FILM	1MF	5%	100V
C819		1-162-318-11	CERAMIC	0.001MF	10%	500V
C820		1-126-951-11	ELECT	470MF	20%	35V
C822		1-104-696-11	FILM	0.015MF	10%	100V
C824		1-106-367-00	MYLAR	0.01MF	10%	400V
C827		1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C828		1-126-960-11	ELECT	1MF	20%	50V
C831		1-106-375-12	MYLAR	0.022MF	10%	250V

REF.NO.		PART NO.	DESCRIPTION	REMARK
			< FILTER >	
CF101		1-404-801-11	TRAP, CERAMIC (KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21T3R)	
		1-409-430-11	TRAP, CERAMIC	(KV-21M3B/21T3B)
		1-409-429-11	TRAP, CERAMIC (KV-21M3L/21T3L/21M3U/21T3U)	
CF102		1-409-327-00	TRAP, CERAMIC (6.5MHz) (KV-21M3K/21T3K/21T3R)	
CF103		1-760-106-11	FILTER, CERAMIC (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21T3R)	
		1-567-100-00	FILTER, CERAMIC (KV-21M3L/21T3L/21M3U/21T3U)	
CF104		1-567-101-11	FILTER CERAMIC	(KV-21M3K/21T3K/21T3R)
CF105		1-760-154-11	TRAP, CERAMIC	(KV-21M3B/21T3B)
SWF101		1-579-120-11	FILTER, SURFACE WAVE (KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E)	
		1-579-273-11	FILTER, SURFACE WAVE	(KV-21M3B/21T3B)
		1-579-414-11	FILTER, SURFACE WAVE	(KV-21M3K/21T3K/21T3R)
		1-767-214-11	FILTER, SURFACE WAVE	(KV-21M3L/21T3L/21M3U/21T3U)
SWF102		1-760-722-11	FILTER, SURFACE WAVE	(KV-21M3B/21T3B)
			< CONNECTOR >	
CN001		*1-564-508-11	PLUG, CONNECTOR 5P	
CN201		*1-564-506-11	PLUG, CONNECTOR 3P (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)	
		*1-564-507-11	PLUG CONNECTOR 4P (KV-21M3K/21T3K/21T3R)	
CN601	!	*1-580-844-11	PIN, CONNECTOR (POWER)	
CN602	!	1-508-786-11	PIN, CONNECTOR (5MM PITCH) 2P (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
CN603	!	1-508-765-11	PIN, CONNECTOR (5MM PITCH) 3P	
CN801		*1-580-798-11	CONNECTOR PIN (DY) 6P	
CNA81		*1-568-881-51	PIN, CONNECTOR 6P	
CNA82		*1-568-880-51	PIN, CONNECTOR 5P	
			< DIODE >	
D001		8-719-057-56	DIODE LS5360HL	
D002		8-759-157-40	DIODE UPC574J	
D003		8-719-109-89	DIODE RD5.6ESB2	
D004		8-719-109-85	DIODE RD5.1ES-B2	
D005		8-719-991-33	DIODE 1SS133T-77	
D006		8-719-991-33	DIODE 1SS133T-77	
D007		8-719-109-89	DIODE RD5.6ESB2	
D014		8-719-991-33	DIODE 1SS133T-77	
D016		8-719-109-89	DIODE RD5.6ESB2	
D017		8-719-109-89	DIODE RD5.6ESB2	
D100		8-719-991-33	DIODE 1SS133T-77	
D102		8-719-903-27	DIODE 1SS168	(KV-21M3B/21T3B)
D104		8-719-903-27	DIODE 1SS168	(KV-21M3B/21T3B)
D105		8-719-991-33	DIODE 1SS133T-77 (KV-21M3K/21T3K/21T3R)	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D106	8-719-991-33	DIODE 1SS133T-77	(KV-21M3K/21T3K/21T3R)
D107	8-719-991-33	DIODE 1SS133T-77	
D109	8-719-820-71	DIODE 1SV214 (KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
D301	8-719-991-33	DIODE 1SS133T-77	
D302	8-719-991-33	DIODE 1SS133T-77	
D305	1-249-412-11	CARBON 390 5% 1/4W	
D307	8-719-991-33	DIODE 1SS133T-77	(KV-21M3B/21T3B)
D308	8-719-991-33	DIODE 1SS133T-77	(KV-21M3B/21T3B)
D310	8-719-991-33	DIODE 1SS133T-77	
D315	8-719-991-33	DIODE 1SS133T-77	
D401	8-719-109-97	DIODE RD6.8ES-B2	
D402	8-719-109-97	DIODE RD6.8ES-B2	
D403	8-719-109-97	DIODE RD6.8ES-B2	
D404	8-719-109-97	DIODE RD6.8ES-B2	
D405	8-719-109-97	DIODE RD6.8ES-B2	
D406	8-719-109-97	DIODE RD6.8ES-B2	
D407	8-719-109-97	DIODE RD6.8ES-B2	
D408	8-719-109-97	DIODE RD6.8ES-B2	
D409	8-719-991-33	DIODE 1SS133T-77	
D410	8-719-109-97	DIODE RD6.8ES-B2	
D412	8-719-109-97	DIODE RD6.8ES-B2	
D414	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-302-43	DIODE ELIZ	
D600	8-719-991-33	DIODE 1SS133T-77	
D601	8-719-046-77	DIODE EM1-V1	
D602	8-719-312-61	DIODE EU-1Z	
D603	8-719-046-78	DIODE EG-1Z-V1	
D604	8-719-312-61	DIODE EU-1Z	
D605	8-719-312-61	DIODE EU-1Z	
D606	8-719-979-85	DIODE EGP20G	
D607	8-719-302-43	DIODE ELIZ	
D608	8-719-980-78	DIODE ERA83-006	
D610	8-719-025-88	DIODE GBU4JL-6088	
D611	8-719-991-33	DIODE 1SS133T-77	
D612	1-535-465-11	LEAD, JUMPER (5.0MM)	
D613	8-719-109-89	DIODE RD5.6ESB2	
D614	8-719-109-89	DIODE RD5.6ESB2	
D801	8-719-950-57	DIODE BYD33G	
D802	8-719-302-43	DIODE ELIZ	
D803	8-719-945-80	DIODE ERC06-15S	
D805	8-719-928-08	DIODE ERD28-08S	
D806	8-719-302-43	DIODE ELIZ	
D807	8-719-991-33	DIODE 1SS133T-77	
D809	8-719-302-43	DIODE ELIZ	
		< FUSE >	
F601 !	1-576-231-21	FUSE (H.B.C.) 4A,250V	
	*1-533-725-11	HOLDER, FUSE (F601)	
		< FERRITE BEAD >	
FB001	1-412-911-11	FERRITE BEAD INDUCTOR 1.1UH	
FB002	1-412-911-11	FERRITE BEAD INDUCTOR 1.1UH	
FB003	1-535-465-11	LEAD, JUMPER (5.0MM)	
FB601	1-412-911-11	FERRITE BEAD INDUCTOR 1.1UH	
FB602	1-535-465-11	LEAD, JUMPER (5.0MM)	
FB603	1-412-911-11	FERRITE BEAD INDUCTOR 1.1UH	
FB604	1-412-911-11	FERRITE BEAD INDUCTOR 1.1UH	
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB607	1-535-465-11	LEAD, JUMPER (5.0MM)	
FB608	1-535-465-11	LEAD, JUMPER (5.0MM)	
FB801	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
		< IC >	
IC001	8-759-474-59	IC SAA5288ZP/M1/025 (KV-21M3A/21M3B/21M3D/21M3E/21M3K/21M3L/21M3U)	
	8-759-475-66	IC SAA5498ZP/M1/014 (KV-21T3A/21T3B/21T3E/21T3K/21T3L/21T3U)	
	8-759-475-68	IC SAA5498ZP/M1/016	(KV-21T3D)
	8-759-475-67	IC SAA5498ZP/M1/015	(KV-21T3R)
IC002	8-759-370-33	IC ST24C04FB6 (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3K/21M3L 21T3L/21T3R/21M3U/21T3U)	
	8-759-251-04	IC ST24C02FB6	(KV-21T3K)
IC003	8-742-014-10	HIC SBX1981-51	
IC101	8-759-333-19	IC TDA9806 (KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
	8-759-333-17	IC TDA9812	(KV-21M3B/21T3B)
IC301	8-759-333-44	IC MC44007P (KV-21M3A/21T3A/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)	
	8-759-333-45	IC MC44002P (KV-21M3B/21T3B/21M3D/21T3D/21M3K/21T3K/21T3R)	
IC302	8-759-333-46	IC MC44140P	
IC401	8-759-041-82	IC TDA1013B	
IC501	8-759-192-71	IC STV9379	
IC601	8-749-011-02	IC STR-S5706	
IC603	8-759-337-99	IC TDA8139	
		< SOCKET >	
J201	1-568-267-21	JACK	
J401	1-695-551-11	SOCKET 21P	
J1401	1-778-054-11	JACK, PIN	
		< COIL >	
L101	1-410-669-31	INDUCTOR 33UH	
L105	1-408-411-00	INDUCTOR 15UH	
L108	1-408-408-00	INDUCTOR 8.2UH (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)	
	1-408-405-00	INDUCTOR 4.7UH (KV-21M3K/21T3K/21T3R)	
L109	1-403-686-11	COIL	
L110	1-410-673-31	INDUCTOR 68UH	
L111	1-410-665-31	INDUCTOR 15UH	(KV-21M3B/21T3B)
L112	1-408-417-00	INDUCTOR 47UH	
L113	1-410-985-11	INDUCTOR CHIP 0.22UH	
L114	1-410-671-31	INDUCTOR 47UH	
L201	1-412-531-31	INDUCTOR 33UH	
L401	1-408-409-00	INDUCTOR 10UH	
L501	1-412-525-41	INDUCTOR 10UH	
L601	1-535-465-11	LEAD, JUMPER (5.0MM)	
L602	1-408-609-41	INDUCTOR 33UH	
L603	1-410-669-31	INDUCTOR 33UH	
L604	1-408-417-00	INDUCTOR 47UH	
L800	1-412-553-11	INDUCTOR 3.3MMH	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
L801	1-420-872-00	COIL, AIR CORE 1.9UH	
L802	1-411-635-11	COIL, AIR-CORE 0.7UH	
L803	1-459-390-00	COIL (WITH CORE)	
L804	1-459-105-21	COIL(WITH CORE)	
L805	1-412-531-31	INDUCTOR 33UH	
L806	1-459-652-12	HLC	
L807	1-535-465-11	LEAD, JUMPER (5.0MM)	
		< IC LINK >	
PS602 !	1-532-686-91	LINK, IC 2.7A (ICP-F75)	
PS603 !	1-532-686-91	LINK, IC 2.7A (ICP-F75)	
PS605	1-535-465-11	LEAD, JUMPER (5.0MM)	
		< TRANSISTOR >	
Q001	8-729-922-66	TRANSISTOR 2SC2410SN	
Q002	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q005	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q006	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q007	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q008	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q010	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q011	8-729-900-89	TRANSISTOR DTC144ES	
Q012	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q013	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q014	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q015	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q016	8-729-216-22	TRANSISTOR 2SA1162-G	
Q100	8-729-901-01	TRANSISTOR DTC144EK	
Q101	8-729-900-80	TRANSISTOR DTC114ES	(KV-21M3B/21T3B)
Q102	8-729-900-80	TRANSISTOR DTC114ES	(KV-21M3B/21T3B)
Q103	8-729-900-80	TRANSISTOR DTC114ES	(KV-21M3B/21T3B)
Q105	8-729-901-01	TRANSISTOR DTC144EK	
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q109	8-729-022-54	TRANSISTOR 2SC3779C,D-AA	(KV-21M3B/21T3B)
Q111	8-729-900-90	TRANSISTOR DTC144ES	(KV-21M3K/21T3K/21T3R)
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q113	8-729-900-90	TRANSISTOR DTC144ES-TP	(KV-21M3K/21T3K/21T3R)
Q114	8-729-901-01	TRANSISTOR DTC144EK	
Q115	8-729-026-41	TRANSISTOR 2SA933AS-QRT	(KV-21M3B/21T3B)
Q116	8-729-900-89	TRANSISTOR DTC144ES	(KV-21M3B/21T3B)
Q300	8-729-900-80	TRANSISTOR DTC114ES	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q302	8-729-900-80	TRANSISTOR DTC114ES	
Q303	8-729-900-80	TRANSISTOR DTC114ES	
Q304	8-729-900-80	TRANSISTOR DTC114ES	
Q305	8-729-900-80	TRANSISTOR DTC114ES	
Q306	8-729-900-80	TRANSISTOR DTC114ES	
Q307	8-729-026-41	TRANSISTOR 2SA933AS-QRT	(KV-21M3B/21T3B)
Q308	8-729-901-01	TRANSISTOR DTC144EK	(KV-21M3B/21T3B/21M3D/21T3D/21M3K/21T3K)
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G	
Q403	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q404	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-900-65	TRANSISTOR DTA144ES	
Q801	8-729-140-50	TRANSISTOR 2SC3209LK	
Q802	8-729-033-85	TRANSISTOR S2000N-16E305A	
Q803	8-729-900-89	TRANSISTOR DTC144ES	
Q804	8-729-019-01	TRANSISTOR 2SD2394-EF	
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
JR003	1-216-296-00	CONDUCTOR, CHIP	
JR004	1-216-296-00	CONDUCTOR, CHIP	
JR007	1-216-295-00	CONDUCTOR, CHIP	
JR008	1-216-295-00	CONDUCTOR, CHIP	
JR009	1-216-295-00	CONDUCTOR, CHIP	
JR011	1-216-295-00	CONDUCTOR, CHIP	(KV-21M3B/21T3B)
JR012	1-216-295-00	CONDUCTOR, CHIP	
JR013	1-216-295-00	CONDUCTOR, CHIP	
JR014	1-216-296-00	CONDUCTOR, CHIP	
JR015	1-216-295-00	CONDUCTOR, CHIP	
JR017	1-216-295-00	CONDUCTOR, CHIP	
JR018	1-216-296-00	CONDUCTOR, CHIP	
JR021	1-216-296-00	CONDUCTOR, CHIP	
JR022	1-216-296-00	CONDUCTOR, CHIP	
JR023	1-216-295-00	CONDUCTOR, CHIP	
JR027	1-216-296-00	CONDUCTOR, CHIP	
JR028	1-216-296-00	CONDUCTOR, CHIP	
JR029	1-216-295-00	CONDUCTOR, CHIP	
JR030	1-216-296-00	CONDUCTOR, CHIP	
JR031	1-216-296-91	CONDUCTOR, CHIP	
JR032	1-216-296-00	CONDUCTOR, CHIP	
JR034	1-216-296-00	CONDUCTOR, CHIP	
JR035	1-216-295-00	CONDUCTOR, CHIP	
R001	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
R002	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R005	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R006	1-126-089-00	METAL GLAZE 47K 5% 1/10W	(KV-21M3A/21T3A/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)
	1-216-085-00	METAL GLAZE 33K 5% 1/10W	(KV-21M3B/21T3B/21M3D/21T3D/21M3K/21T3K/21T3R)
R008	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R009	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R010	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R011	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R012	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R013	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R014	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R015	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R016	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R017	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R018	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R019	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R020	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R021	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R022	1-216-295-00	CONDUCTOR, CHIP	
R024	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R025	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R026	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R027	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
R028	1-216-081-00	METAL GLAZE 22K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R029	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R030	1-215-900-11	METAL OXIDE	22K	5%	2W F
R031	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R032	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R033	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R034	1-249-429-11	CARBON	10K	5%	1/4W
R035	1-247-863-91	CARBON	22K	5%	1/4W
R036	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R037	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R039	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R040	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R042	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R044	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R045	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R046	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R047	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R048	1-216-174-00	METAL GLAZE	100	5%	1/8W
R049	1-216-041-00	METAL GLAZE	470	5%	1/10W
R052	1-216-238-91	METAL GLAZE	47K	5%	1/8W
R055	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R060	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R061	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R062	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R063	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R064	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R065	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R066	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R067	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R068	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R069	1-247-863-91	CARBON	22K	5%	1/4W
R070	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R071	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R072	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R073	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R074	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R075	1-249-436-11	CARBON	39K	5%	1/4W
R078	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R079	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R080	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R081	1-249-438-11	CARBON	56K	5%	1/4W
R088	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R089	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R090	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R091	1-249-427-11	CARBON	6.8K	5%	1/4W
R093	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R094	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R095	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R096	1-216-033-00	METAL GLAZE	220	5%	1/10W
R097	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R098	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R099	1-216-200-11	METAL GLAZE	1.2K	5%	1/8W
R102	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R104	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W (KV-21M3B/21T3B)
R105	1-216-025-00	METAL GLAZE	100	5%	1/10W (KV-21M3B/21T3B)
R106	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W (KV-21M3B/21T3B)
R107	1-216-017-91	METAL GLAZE	47	5%	1/10W (KV-21M3B/21T3B)
R108	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R109	1-216-025-00	METAL GLAZE	100	5%	1/10W (KV-21M3B/21T3B)
R110	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R111	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R112	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W (KV-21M3B/21T3B)
R113	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W (KV-21M3B/21T3B)
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W (KV-21M3B/21T3B)
R115	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W (KV-21M3B/21T3B)
R116	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R117	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R118	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R122	1-216-029-00	METAL GLAZE	150	5%	1/10W (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)
	1-216-025-00	METAL GLAZE	100	5%	1/10W (KV-21M3K/21T3K/21T3R)
R123	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R124	1-216-025-00	METAL GLAZE	100	5%	1/10W
R125	1-216-025-00	METAL GLAZE	100	5%	1/10W
R126	1-216-025-00	METAL GLAZE	100	5%	1/10W
R127	1-216-180-00	METAL GLAZE	180	5%	1/8W
R128	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R133	1-249-429-11	CARBON	10K	5%	1/4W
R134	1-216-031-00	METAL GLAZE	180	5%	1/10W (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21T3R)
	1-216-029-00	METAL GLAZE	150	5%	1/10W (KV-21M3L/21T3L/21M3U/21T3U)
R136	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R137	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R138	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R141	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R142	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R143	1-216-295-00	CONDUCTOR, CHIP			(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)
R144	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W (KV-21M3K/21T3K/21T3R)
R145	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W (KV-21M3K/21T3K/21T3R)
R146	1-216-043-91	METAL GLAZE	560	5%	1/10W
R147	1-216-043-91	METAL GLAZE	560	5%	1/10W (KV-21M3K/21T3K/21T3R)
R149	1-216-057-00	METAL GLAZE	2.2K	5%	1/8W (KV-21M3K/21T3K/21T3R)
R151	1-216 097-00	METAL GLAZE	100K	5%	1/10W (KV-21M3K/21T3K/21T3L/21T3R/21M3U/21T3U)
R153	1-216-097-00	METAL GLAZE	100K	5%	1/10W (KV-21M3K/21T3K/21T3L/21T3R/21M3U/21T3U)
R154	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R155	1-216-081-00	METAL GLAZE	22K	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R157	1-216-049-00	METAL GLAZE 1K 5% 1/10W	(KV-21M3B/21T3B)
R158	1-216-039-00	METAL GLAZE 390 5% 1/10W	(KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
	1-216-031-00	METAL GLAZE 180 5% 1/10W	(KV-21M3B/21T3B)
R159	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R160	1-216-238-91	METAL GLAZE 47K 5% 1/8W	
R161	1-216-295-00	CONDUCTOR, CHIP	(KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
R162	1-216-017-91	METAL GLAZE 47 5% 1/10W	(KV-21M3B/21T3B)
R163	1-249-407-11	CARBON 150 5% 1/4W	
R167	1-216-246-00	METAL GLAZE 100K 5% 1/8W	
R168	1-249-407-11	CARBON 150 5% 1/4W	
R169	1-216-073-00	METAL GLAZE 10K 5% 1/10W	(KV-21M3B/21T3B)
R170	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	(KV-21M3B/21T3B)
R171	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	(KV-21M3B/21T3B)
R175	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R176	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R177	1-216-295-00	CONDUCTOR, CHIP	
R178	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R179	1-216-212-00	METAL GLAZE 3.9K 5% 1/8W	
R180	1-216-049-00	METAL GLAZE 1K 5% 1/10W	(KV-21M3B/21T3B)
R181	1-216-182-00	METAL GLAZE 220 5% 1/8W	
R182	1-216-182-00	METAL GLAZE 220 5% 1/8W	
R205	1-260-089-11	CARBON 150 5% 1/2W	
R301	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R302	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R303	1-216-090-00	METAL GLAZE 51K 5% 1/10W	
R304	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R305	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R306	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R307	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R308	1-216-234-00	METAL GLAZE 33K 5% 1/8W	
R309	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R310	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R311	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R312	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R313	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R314	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R315	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R316	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R317	1-216-182-00	METAL GLAZE 220 5% 1/8W	
R318	1-216-021-00	METAL GLAZE 68 5% 1/10W	
R322	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R323	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R325	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R326	1-216-095-00	METAL GLAZE 82K 5% 1/10W	(KV-21M3B/21T3B/21M3D/21T3D/21M3K/21T3K/21T3R)
R327	1-216-097-00	METAL GLAZE 100K 5% 1/10W	(KV-21M3B/21T3B/21M3D/21T3D/21M3K/21T3K/21T3R)
R328	1-216-258-00	METAL GLAZE 330K 5% 1/8W	
R330	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R332	1-535-465-11	LEAD, JUMPER (5.0MM)	
R333	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R334	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R335	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R336	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R337	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R339	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R340	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R341	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R342	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R343	1-216-295-00	CONDUCTOR, CHIP	
R344	1-216-295-00	CONDUCTOR, CHIP	
R345	1-216-238-91	METAL GLAZE 47K 5% 1/8W	
R347	1-216-041-00	METAL GLAZE 470 5% 1/10W	(KV-21M3B/21T3B)
R348	1-216-073-00	METAL GLAZE 10K 5% 1/10W	(KV-21M3B/21T3B)
R349	1-216-105-91	METAL GLAZE 220K 5% 1/10W	(KV-21M3B/21T3B)
R350	1-216-033-00	METAL GLAZE 220 5% 1/10W	(KV-21M3B/21T3B)
R351	1-216-292-11	METAL GLAZE 8.2M 5% 1/8W	(KV-21M3B/21T3B/21M3D/21T3D/21M3K/21T3K/21T3R)
R352	1-216-262-00	METAL GLAZE 470K 5% 1/8W	
R353	1-247-804-11	CARBON 75 5% 1/4W	
R354	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R355	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R356	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R357	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R358	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R359	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R361	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R362	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R363	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R401	1-216-049-00	METAL GLAZE 1K 5% 1/10W	(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)
	1-216-041-00	METAL GLAZE 470 5% 1/10W	(KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
R402	1-249-431-11	CARBON 15K 5% 1/4W	
R403	1-249-431-11	CARBON 15K 5% 1/4W	
R405	1-249-389-11	CARBON 4.7 5% 1/4W F	
R406	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R407	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R408	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R409	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R410	1-247-804-11	CARBON 75 5% 1/4W	(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K/21T3R)
	1-247-698-11	CARBON 68 5% 1/4W	(KV-21M3L/21T3L/21M3U/21T3U)
R411	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R412	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R413	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R414	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R415	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R416	1-216-081-00	METAL GLAZE 22K 5% 1/10W	

A C

The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ! sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R417	1-216-295-00	CONDUCTOR, CHIP	
R501	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R502	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R503	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R504	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R505	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R506	1-216-682-11	METAL CHIP 20K 0.50% 1/10W	
		(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)	
	1-216-080-00	METAL CHIP 20K 5% 1/10W	
		(KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)	
R507	1-216-350-11	METAL OXIDE 1.2 5% 1W	F
R508	1-215-865-11	METAL OXIDE 220 5% 1W	F
R509	1-249-387-11	CARBON 3.3 5% 1/4W	F
R600	1-216-365-00	METAL OXIDE 0.47 5% 2W	F
R601 !	1-202-962-11	WIREWOUND 3.3 5% 10W	
R603	1-215-858-00	METAL OXIDE 15 5% 1W	F
R604	1-215-927-00	METAL OXIDE 47K 5% 3W	F
R606	1-249-441-11	CARBON 100K 5% 1/4W	
R607	1-216-366-00	METAL OXIDE 0.56 5% 2W	F
R608	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
R609	1-215-859-00	METAL OXIDE 22 5% 1W	F
R610	1-249-419-11	CARBON 1.5K 5% 1/4W	
R611	1-215-430-00	METAL 2.4K 1% 1/4W	
R612 !	1-202-719-91	SOLID 1M 10% 1/2W	
R613	1-535-143-11	LEAD, JUMPER (10.0MM)	
R614 !	1-218-265-21	METAL 8.2M 5% 1W	
R615	1-217-418-61	FUSIBLE 0.47 10% 1/2W	F
R617	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R618	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R620	1-215-479-00	METAL 270K 1% 1/4W	
R621	1-249-429-11	CARBON 10K 5% 1/4W	
R622	1-247-895-91	CARBON 470K 5% 1/4W	
R623	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R624	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R625	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R626	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R627	1-216-346-00	METAL OXIDE 0.56 5% 1W	F
R630	1-249-401-11	CARBON 47 5% 1/4W	
R800	1-215-887-00	METAL OXIDE 150 5% 2W	F
R801	1-247-891-00	CARBON 330K 5% 1/4W	
R802	1-247-807-31	CARBON 100 5% 1/4W	
R803	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R804	1-217-778-11	FUSIBLE 1K 5% 1W	F
R806	1-216-349-00	METAL OXIDE 1 5% 1W	F
R807	1-249-399-11	CARBON 33 5% 1/4W	
R808	1-260-114-11	CARBON 18K 5% 1/2W	
R810	1-247-895-91	CARBON 470K 5% 1/4W	
R811	1-215-890-11	METAL OXIDE 470 5% 2W	F
R813	1-216-266-00	METAL GLAZE 680K 5% 1/8W	
R814	1-249-443-11	CARBON 0.47 5% 1/4W	F
R815	1-216-250-00	METAL GLAZE 150K 5% 1/8W	
R816	1-216-369-00	METAL OXIDE 1 5% 2W	F
R817	1-216-447-00	METAL OXIDE 27 5% 2W	F
R818	1-260-115-11	CARBON 22K 5% 1/2W	
R819	1-249-441-11	CARBON 100K 5% 1/4W	
R820	1-249-935-11	CARBON 3.3K 5% 1/4W	F
R821	1-216-295-00	CONDUCTOR, CHIP	
R822	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R823	1-249-413-11	CARBON 470 5% 1/4W	
R824	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	
R825	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R826	1-535-143-11	LEAD, JUMPER (10.0MM)	
R828	1-216-115-00	METAL GLAZE 560K 5% 1/10W	
R834	1-215-869-11	METAL OXIDE 1K 5% 1W	F
R835	1-249-413-11	CARBON 470 5% 1/4W	
		< VARIABLE RESISTOR >	
RV102	1-241-765-11	RES, ADJ, CARBON 22K	(KV-21M3B/21T3B)
RV801	1-241-630-11	RES, ADJ, CARBON 10K	
		< SWITCH >	
S001	1-571-532-21	SWITCH, TACTIL	
S002	1-571-532-21	SWITCH, TACTIL	
S003	1-571-532-21	SWITCH, TACTIL	
S004	1-571-532-21	SWITCH, TACTIL	
S005	1-571-532-21	SWITCH, TACTIL	
S006	1-571-532-21	SWITCH, TACTIL	
S601 !	1-571-433-21	SWITCH, PUSH (AC POWER)	
		< TRANSFORMER >	
T601 !	1-427-962-11	TRANSFORMER, LINE FILTER	
T602 !	1-429-207-11	TRANSFORMER, CONVERTER	
T801	1-437-090-31	HDT	
T802 !	1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2)	
		< THERMISTOR >	
THP601 !	1-808-059-31	THERMISTOR, POSITIVE	
		< TUNER >	
TU101	8-598-331-02	TUNER (BT-AC401)	
		(KV-21M3A/21T3A/21M3D/21T3D/21M3E/21T3E/21M3K/21T3K)	
	1-693-310-13	TUNER (TELE4-002B)	
		(KV-21M3B/21T3B/21T3R)	
	1-693-302-11	TUNER (UV1315)	(KV-21M3L/21T3L/21M3U/21T3U)
		< CRYSTAL >	
X001	1-578-774-11	VIBRATOR, CRYSTAL	
X301	1-760-907-21	VIBRATOR, CRYSTAL	(KV-21M3L/21T3L/21T3R)
X302	1-760-710-21	VIBRATOR, CRYSTAL	
**********			
*A-1638-104-A		C BOARD COMPLETE	(KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/21M3E/21T3E)
	**********		
*A-1638-103-A		C BOARD COMPLETE	(KV-21M3K/21T3K/21M3L/21T3L/21T3R/21M3U/21T3U)
	**********		
		< CAPACITOR >	
C701	1-102-074-00	CERAMIC 0.001MF 10%	50V
C702	1-102-117-00	CERAMIC 820PF 10%	50V
C703	1-102-117-00	CERAMIC 820PF 10%	50V
C704	1-102-824-00	CERAMIC 470PF 5%	50V
C705	1-102-824-00	CERAMIC 470PF 5%	50V
C706	1-102-824-00	CERAMIC 470PF 5%	50V
C707	1-107-651-11	ELECT 4.7MF 20%	250V

C

The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ! sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
C709	1-117-215-51	CERAMIC 0.001MF	3KV
C710	1-126-967-11	ELECT 47MF 20%	16V
C711	1-101-880-00	CERAMIC 47PF 5%	50V
C712	1-101-880-00	CERAMIC 47PF 5%	50V
C713	1-101-880-00	CERAMIC 47PF 5%	50V
		< CONNECTOR >	
CNC71	*1-568-881-51	PIN, CONNECTOR 6P	
CNC72	*1-568-880-51	PIN, CONNECTOR 5P	
CNC76	1-695-915-11	TAB (CONTACT)	
CNC77	1-695-915-11	TAB (CONTACT)	
		< DIODE >	
D701	8-719-991-33	DIODE 1SS133T-77	
D702	8-719-991-33	DIODE 1SS133T-77	
D703	8-719-991-33	DIODE 1SS133T-77	
D704	8-719-991-33	DIODE 1SS133T-77	
D705	8-719-991-33	DIODE 1SS133T-77	
D706	8-719-991-33	DIODE 1SS133T-77	
D707	8-719-991-33	DIODE 1SS133T-77	
D708	8-719-991-33	DIODE 1SS133T-77	
D709	8-719-991-33	DIODE 1SS133T-77	
D716	8-719-991-33	DIODE 1SS133T-77	
D717	8-719-054-81	DIODE 1SS292T-77	
D718	8-719-991-33	DIODE 1SS133T-77	
D719	8-719-054-81	DIODE 1SS292T-77	
D722	8-719-991-33	DIODE 1SS133T-77 (KV-21M3A/21T3A/21M3B/21T3B/ 21M3D/21T3D/21M3E/21T3E)	
D723	8-719-991-33	DIODE 1SS133T-77	
D724	8-719-054-81	DIODE 1SS292T-77	
		< CRT SOCKET >	
J701	! 1-526-990-21	SOCKET, CRT	
		< TRANSISTOR >	
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q704	8-729-906-70	TRANSISTOR BF871-127	
Q705	8-729-906-70	TRANSISTOR BF871-127	
Q706	8-729-906-70	TRANSISTOR BF871-127	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
Q708	8-729-200-17	TRANSISTOR 2SA1091-0	
Q709	8-729-200-17	TRANSISTOR 2SA1091-0	
		< RESISTOR >	
R700	1-260-087-81	CARBON 100 5%	1/2W
R701	1-249-417-11	CARBON 1K 5%	1/4W
R702	1-249-417-11	CARBON 1K 5%	1/4W
R705	1-247-791-91	CARBON 22 5%	1/4W
R706	1-247-791-91	CARBON 22 5%	1/4W
R707	1-247-791-91	CARBON 22 5%	1/4W
R708	1-247-815-91	CARBON 220 5%	1/4W
R709	1-247-815-91	CARBON 220 5%	1/4W
R710	1-247-815-91	CARBON 220 5%	1/4W
R711	1-249-417-11	CARBON 1K 5%	1/4W
R714	1-249-417-11	CARBON 1K 5%	1/4W
R715	1-249-417-11	CARBON 1K 5%	1/4W
R716	1-249-417-11	CARBON 1K 5%	1/4W
R717	1-260-105-11	CARBON 3.3K 5%	1/2W
R718	1-260-105-11	CARBON 3.3K 5%	1/2W
R719	1-260-105-11	CARBON 3.3K 5%	1/2W
R720	1-216-487-11	METAL OXIDE 12K 5%	3W F
R721	1-216-487-11	METAL OXIDE 12K 5%	3W F
R722	1-216-487-11	METAL OXIDE 12K 5%	3W F
R723	1-535-143-11	LEAD, JUMPER (10.0MM)	
R724	1-260-117-11	CARBON 33K 5%	1/2W
R729	1-216-348-00	METAL OXIDE 0.82 5%	1W F
R734	1-247-815-91	CARBON 220 5%	1/4W
R735	1-247-815-91	CARBON 220 5%	1/4W
R736	1-247-815-91	CARBON 220 5%	1/4W
R744	1-260-103-11	CARBON 2.2K 5%	1/2W
R745	1-260-103-11	CARBON 2.2K 5%	1/2W
R746	1-260-103-11	CARBON 2.2K 5%	1/2W
		< VARIABLE RESISTOR >	
RV702	1-241-656-21	RES, ADJ, METAL FILM 110K	
		********** MISCELLANEOUS **********	
	! 1-411-922-11	COIL, DEGAUSSING (KV-21M3A/21T3A/21M3B/ 21T3B/21M3D/21T3D/ 21M3E/21T3E)	
	! 1-406-612-11	COIL, DEGAUSSING (KV-21M3K/21T3K/21M3L/ 21T3L/21T3R/21M3U/ 21T3U)	
	1-452-032-00	MAGNET, DISC; 10MM Ø	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
	1-452-277-00	MAGNET, BMC	
	! 1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2)	
	1-503-258-21	SPEAKER (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/ 21M3E/21T3E/21M3L/21T3L/21M3U/21T3U)	
	1-504-698-21	SPEAKER (9X5CM) (KV-21M3K/21T3K/21T3R)	
	! 1-540-006-21	CAP ASSY, HIGH-VOLTAGE	
	! 1-571-433-21	SWITCH, PUSH (AC POWER)	
	! 1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-21M3A/21T3A/21M3B/21T3B/21M3D/21T3D/ 21M3E/21T3E/21M3K/21T3K/21T3R)	
	! 1-590-762-11	CORD POWER (WITH PLUG) 2.5A/250V (KV-21M3L/21T3L/21M3U/21T3U)	
	8-598-331-02	TUNER (BT-AC401) (KV-21M3A/21T3A/21M3D/21T3D/21M3E/ 21T3E/21M3K/21T3K	
	1-693-310-13	TUNER (TELE4-002B) (KV-21M3B/21T3B/21T3R)	
	1-693-302-11	TUNER (UV1315) (KV-21M3L/21T3L/21M3U/ 21T3U	
	! 8-738-784-72	ITC	
	! 8-451-295-45	DEFLECTION YOKE (Y21PFA2E)	
V901	! 8-738-784-05	PICTURE TUBE (SD-169)(A51XCH61X)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		ACCESSORIES AND PACKING MATERIALS	
		**********	
	1-770-783-11	CONNECTOR, CONVERSION (KV-21M3K/21T3K/21T3R)	
	4-203-765-41	MANUAL, INSTRUCTION (KV-21M3A/21T3A) (ITALIAN)	
	4-203-765-51	MANUAL, INSTRUCTION (KV-21M3B/21T3B) (FRENCH/ITALIAN/GERMAN/DUTCH)	
	4-203-765-11	MANUAL, INSTRUCTION (KV-21M3D/21T3D) (ENGLISH/DANISH/SWEDISH/FINNISH/ GREEK/DUTCH/NORWEGIAN)	
	4-203-794-11	MANUAL, INSTRUCTION (KV-21M3D/21T3D) (GERMAN/ENGLISH)	
	4-203-765-71	MANUAL, INSTRUCTION (KV-21M3E/21T3E) (SPANISH)	
	4-203-765-81	MANUAL, INSTRUCTION (KV-21M3E/21T3E) (PORTUGUESE/SPANISH)	
	4-203-796-91	MANUAL, INSTRUCTION (KV-21M3K/21T3K) (HUNGARIAN/POLISH/CZECH/ENGLISH/ RUSSIAN/BULGARIAN/FRENCH)	
	4-203-796-61	MANUAL, INSTRCTION (KV-21M3L/21T3L/21M3U/21T3U) (ENGLISH)	
	4-203-796-91	MANUAL, INSTRCTION (KV-21T3R) (RUSSIAN/BULGARIAN/ENGLISH)	
	*4-042-477-01	BAG, PROTECTION (KV-21M3A/21T3A/21M3B/21T3B/21M3D/ 21T3D/21M3E/21T3E)	
	*4-039-905-02	BAG, PROTECTION (KV-21M3K/21T3K/21M3L/21T3L/21T3R/ 21M3U/21T3U)	
	*4-059-225-01	INDIVIDUAL CARTON (KV-21M3A/21T3A/21M3B/21T3B/21M3D/ 21T3D/21M3E/21T3E)	
	*4-059-533-01	INDIVIDUAL CARTON (KV-21M3K/21T3K/21T3R)	
	*4-059-226-01	INDIVIDUAL CARTON (KV-21M3L/21T3L/21M3U/21T3U)	
	*4-058-094-11	CUSHION (LOWER) (ASSY) (KV-21M3A/21T3A/21M3B/21T3B/21M3D/ 21T3D/21M3E/21T3E)	
	*4-058-094-01	CUSHION (LOWER) (ASSY) (KV-21M3K/21T3K/21M3L/21T3L/21T3R/ 21M3U/21T3U)	
	*4-058-093-11	CUSHION (UPPER) (ASSY) (KV-21M3A/21T3A/21M3B/21T3B/21M3D/ 21T3D/21M3E/21T3E)	
	*4-058-093-01	CUSHION (UPPER) (ASSY) (KV-21M3K/21T3K/21M3L/21T3L/21T3R/ 21M3U/21T3U)	
		REMOTE COMMANDER	
		**********	
	1-473-194-11	COMMANDER, STANDARD TYPE (RM-836)	